ORGANIZATIONAL AND INTERMEDIATE MAINTENANCE

PAINTING

CORROSION CONTROL

Reference Material

Alphabetical Index

Record of Applicable Technical Directives

Type/No.	Date	Title and ECP No.	Date Inc.	Remarks
AFC 379	15 May 90	Fuel System Kit, Increased Capacity Stubwing, CH-46E SR&M (ECP 537)	15 Jul 90	—
AFC 492	15 Sep 00	CH-46E New Engine Wash Lines, Installation of (ECP H-46-84)	1 Nov 00	—

1. GENERAL INFORMATION.

Support Equipment Required

Nomenclature	Part No./ Type Designation
Apron, Rubber	MIL-A-41829
Faceshield	L-F-36
Gloves	ZZ-G-381, Type I
Gloves, Vinyl	MIL-G-82242
Goggles, Industrial, Rubber Frame	A-A-1813
Respirator, Canister Type	GGG-M-125/6

Materials Required

Nomenclature	Specification No./ Part No.
Adhesive	EC 1357
Coating, Polyurethane, High Solids,	MIL-PRF-85285
Blue-Gray	Color 35237
Charcoal Gray	Color 36081
Dark Lusterless Gray	Color 36231
Gloss International Orange	Color 12197
Glossy Black	Color 17038
Glossy Insignia White	Color 17875
Glossy Orange-Yellow	Color 13538
Gray	Color 35237
Gray	Color 36320
Gray	Color 36375
Green	Color 34095
Lusterless Black	Color 37038
Lusterless Orange-Yellow	Color 33538
Pale Gray	Color 36495
Red	Color 11105
Red	Color 11136
Red Enamel	Color 21136
White Enamel	Color 27875
Yellow	Color 13538
Epoxy Coating, White	MIL-PRF-22750, Color 17925
Epoxy Primer	MIL-PRF-23377
Epoxy Primer	MIL-PRF-85582
Epoxy Primer, Low Infrared Reflectance	MIL-PRF-23377, Type II
Lacquer, Acrylic (Clear)	MIL-PRF-81352
Lacquer, Synthetic, Black	A-A-3164, Color 37038
Thinner, Cellulose-Nitrate	A-A-857
Walkway Compound,	A-A-59166, Type II
Black	Color 37038
Gray	Color 36320
Pale Gray	Color 36495

2. Surfaces of the helicopter that have been cleaned, treated, or reworked for corrosion elimination must be refinished to match the original color. Refer to figures 1, 2, 3, 4, 5, and 6, and tables 1 and 2, for locations of external and internal markings, insignias, and lettering. Refer to figure 7 for HH-46D/UH-46D/CH-46D helicopters. Refer to figure 8 for CH-46E helicopters. Refer to figure 9 for CH-46E tactical external marking and finishing. Refer to figure 10 for CH-46D tactical external marking and finishing. Refer to figure 11 for CH-46E HMX-1 external marking and insignia.

3. Before refinishing areas which have had the finishes removed, perform the following:

NOTE

Cleaning materials effective against one contaminant may be ineffective against others. Therefore, multiple cleaning procedures may be required to provide clean surfaces capable of passing the water-break test.

This Page Intentionally Left Blank

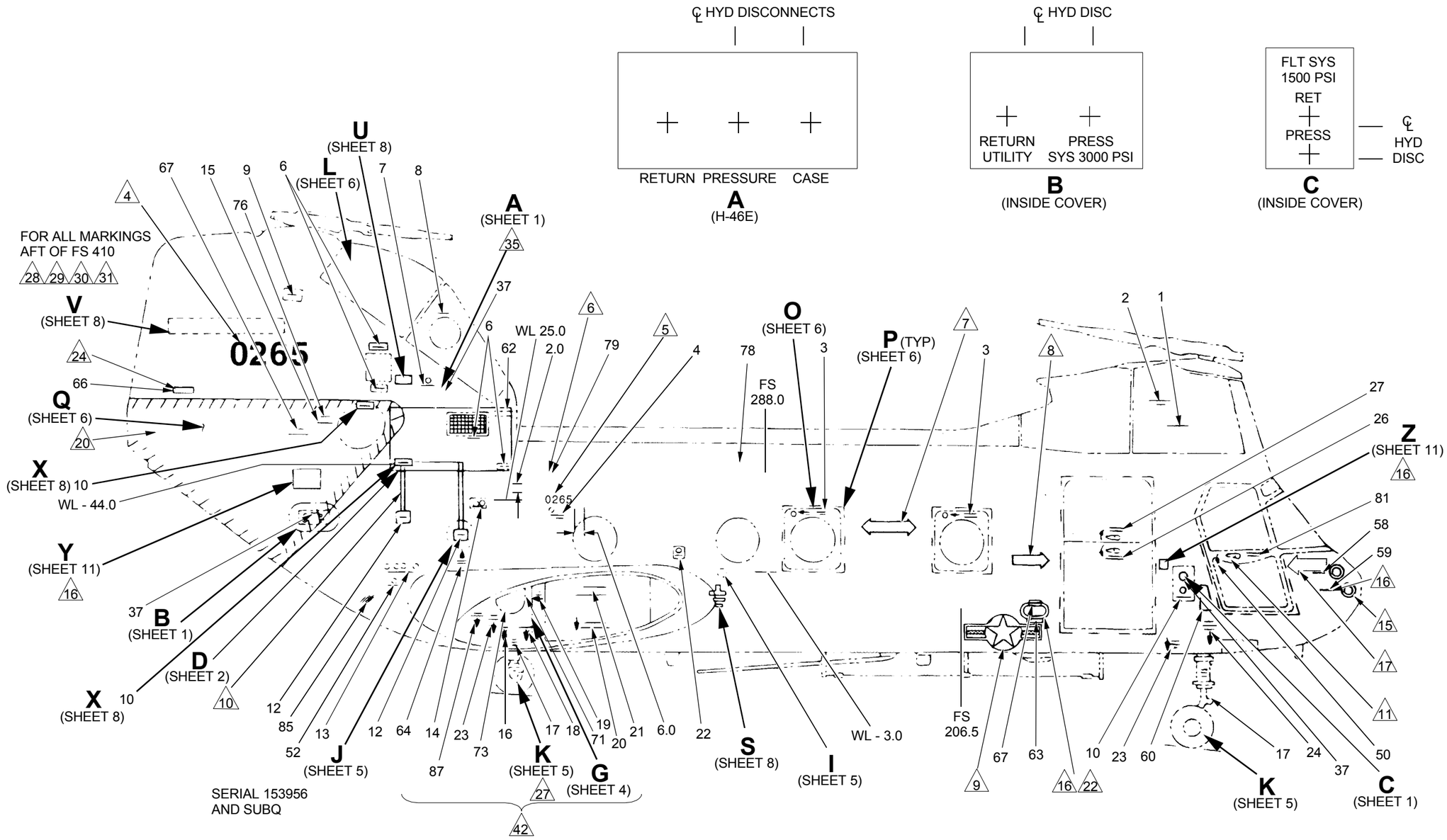


Figure 1. External Marking and Finishing - General (Sheet 1 of 16)

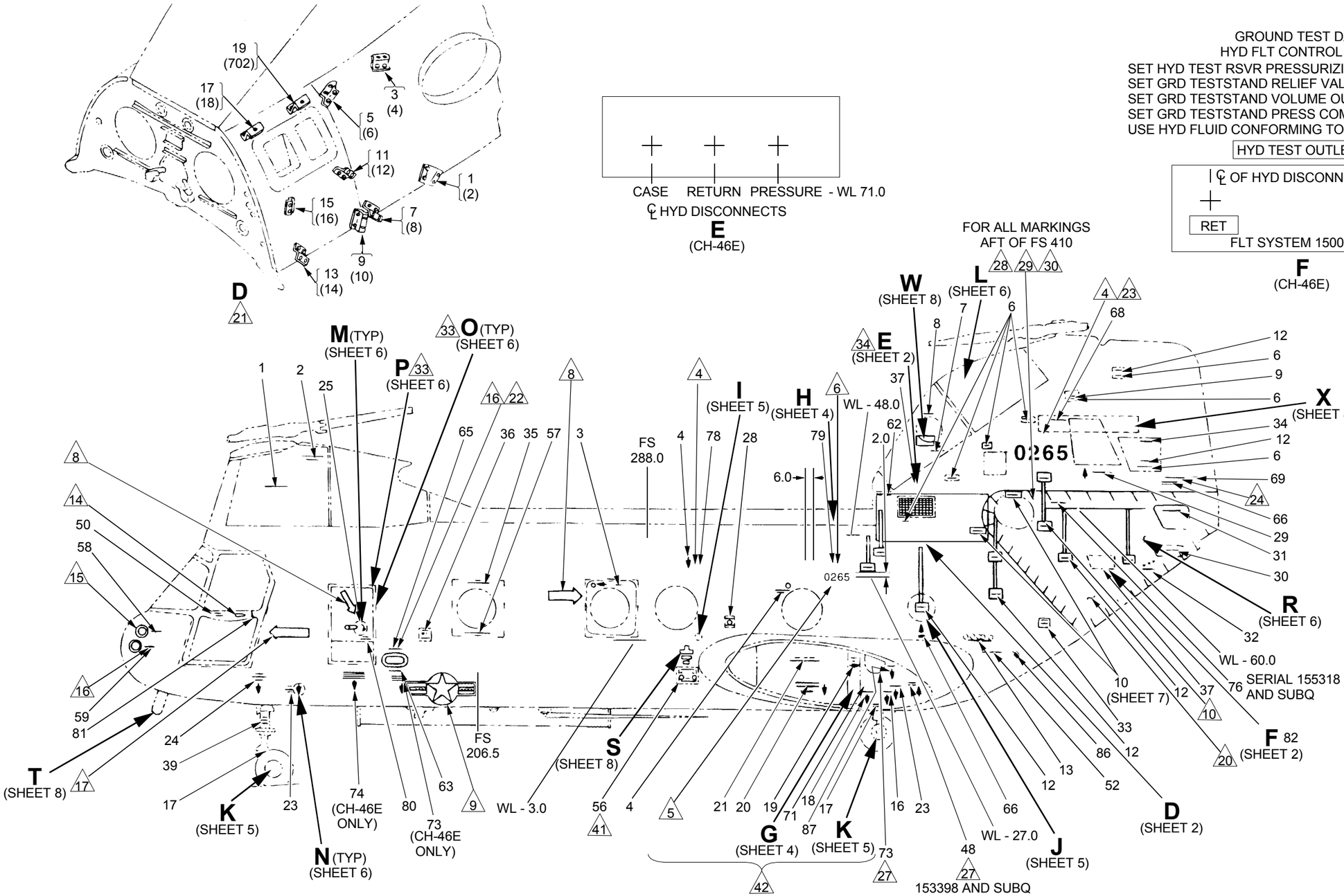


Figure 1. External Marking and Finishing - General (Sheet 2)

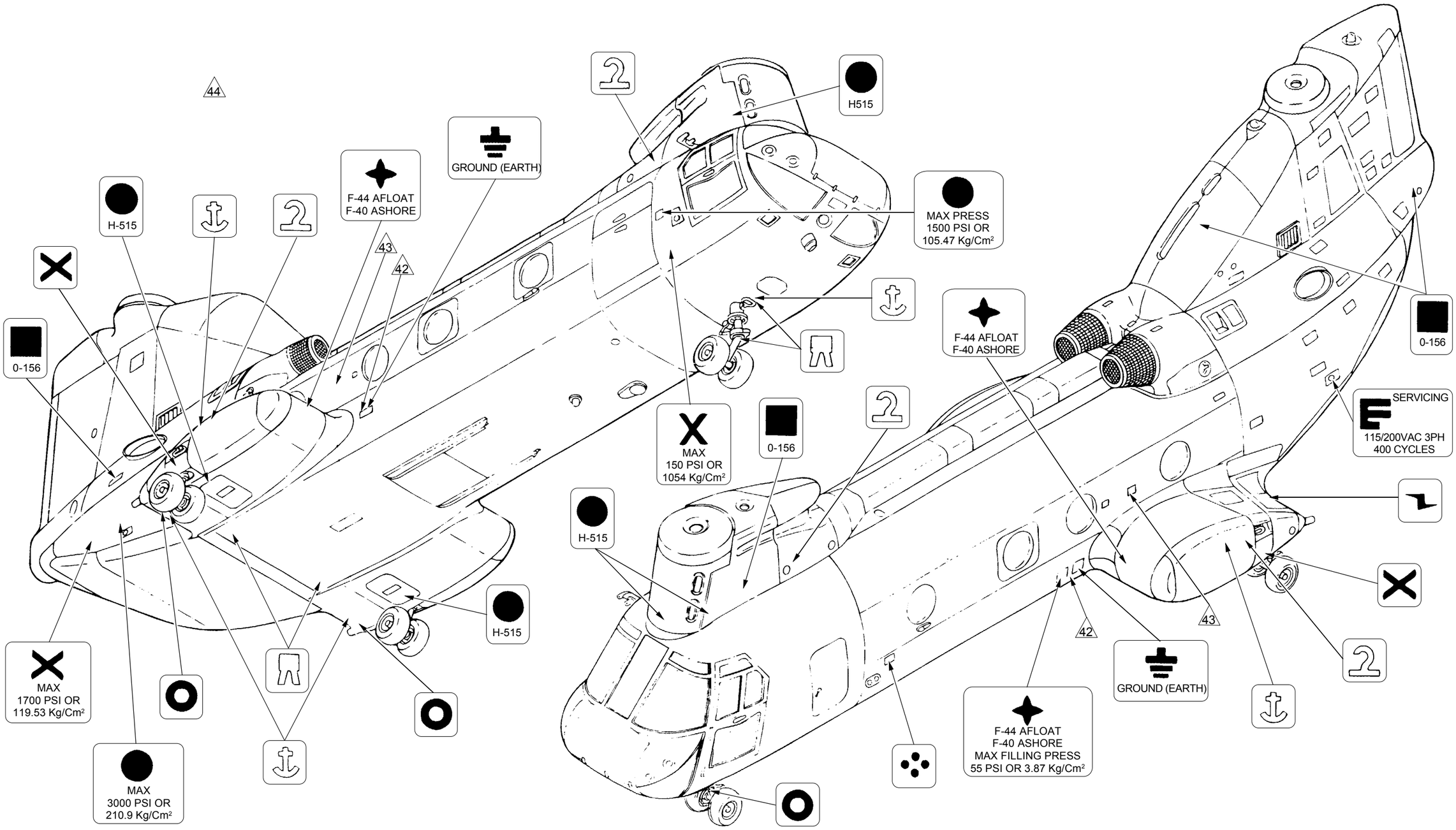
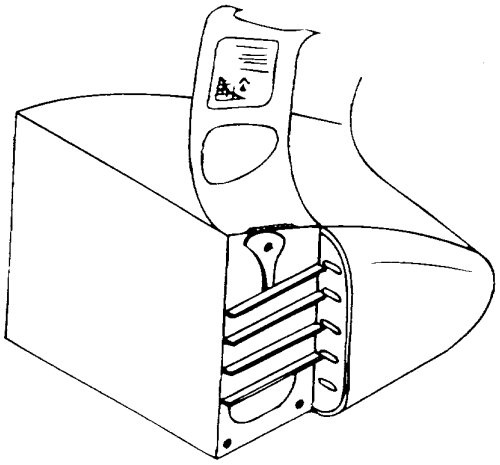
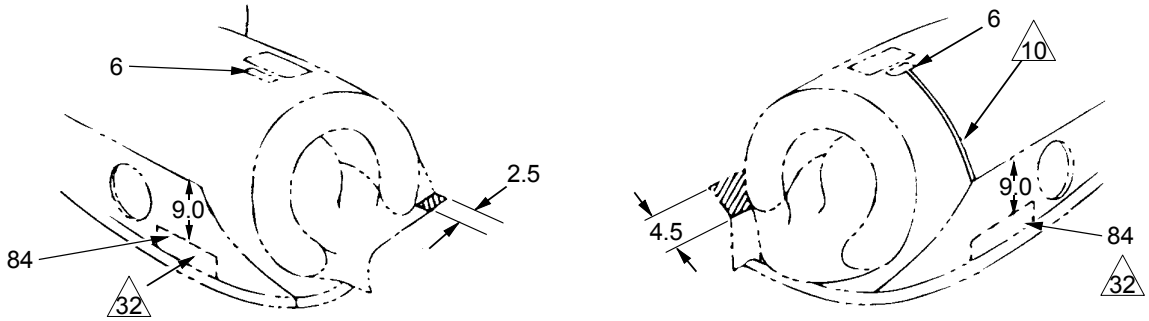


Figure 1. External Marking and Finishing - General (Sheet 3)



G △31
MAIN GEAR SHOCK STRUT
INSTRUCTION PLATE
(LEFT AND RIGHT HAND SIDES)



H
RIGHT SIDE

H
LEFT SIDE

ENGINE AIR PARTICLE SEPARATORS
(HELICOPTERS WITH EAPS)

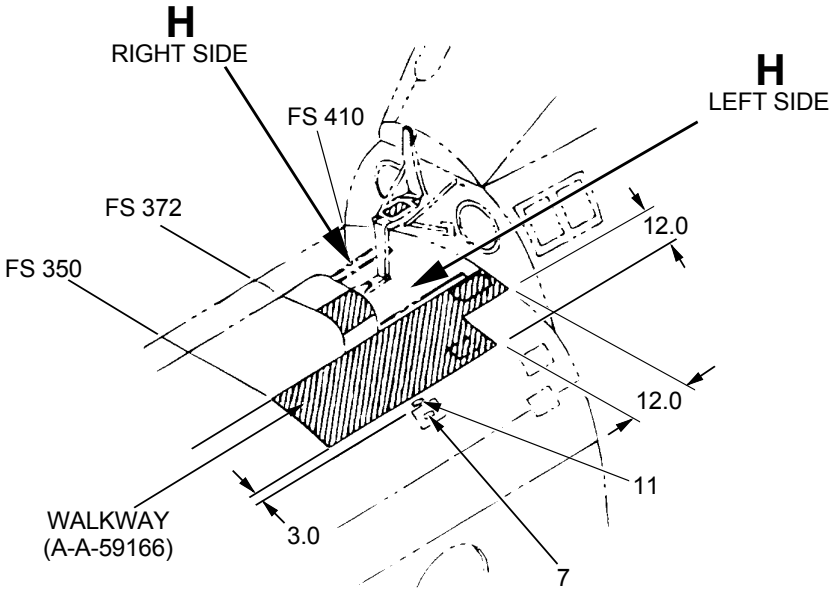


Figure 1. External Marking and Finishing - General (Sheet 4)

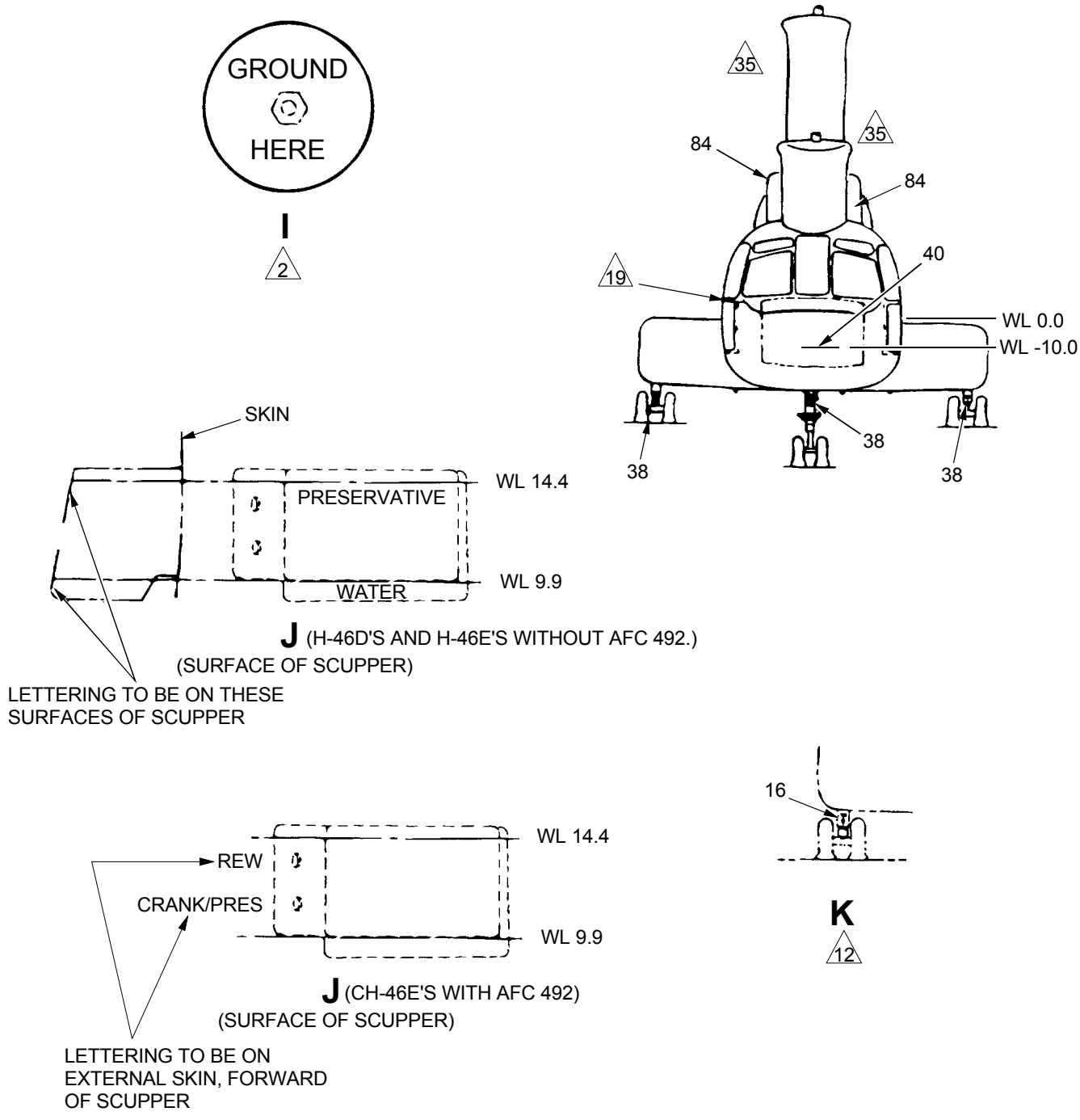
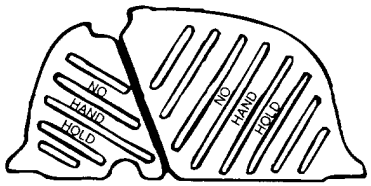
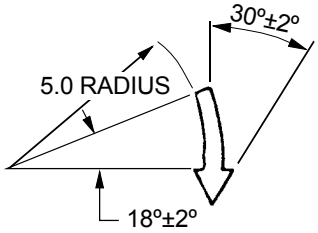


Figure 1. External Marking and Finishing - General (Sheet 5)



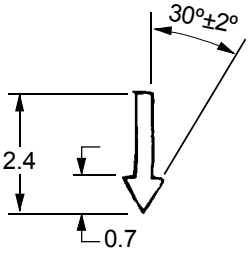
L

18



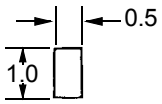
M

13



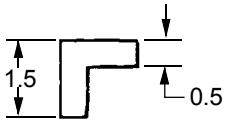
N

STRAIGHT ARROW (TYP)



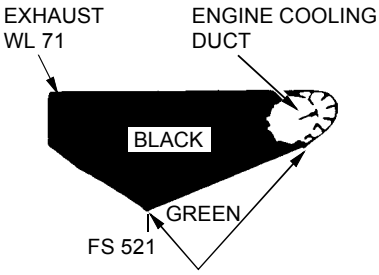
O

STRAIGHT SEGMENT (TYP)



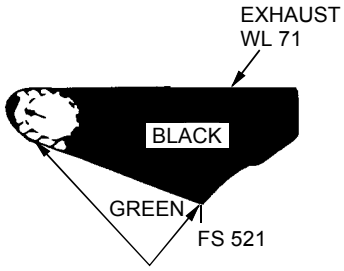
P

CORNER SEGMENT (TYP)



Q

RIGHT HAND ENGINE
EXHAUST TRAIL AREA
CH-46E HELICOPTERS ONLY 20



R

LEFT HAND ENGINE
EXHAUST TRAIL AREA
CH-46E HELICOPTERS ONLY 20

Figure 1. External Marking and Finishing - General (Sheet 6)

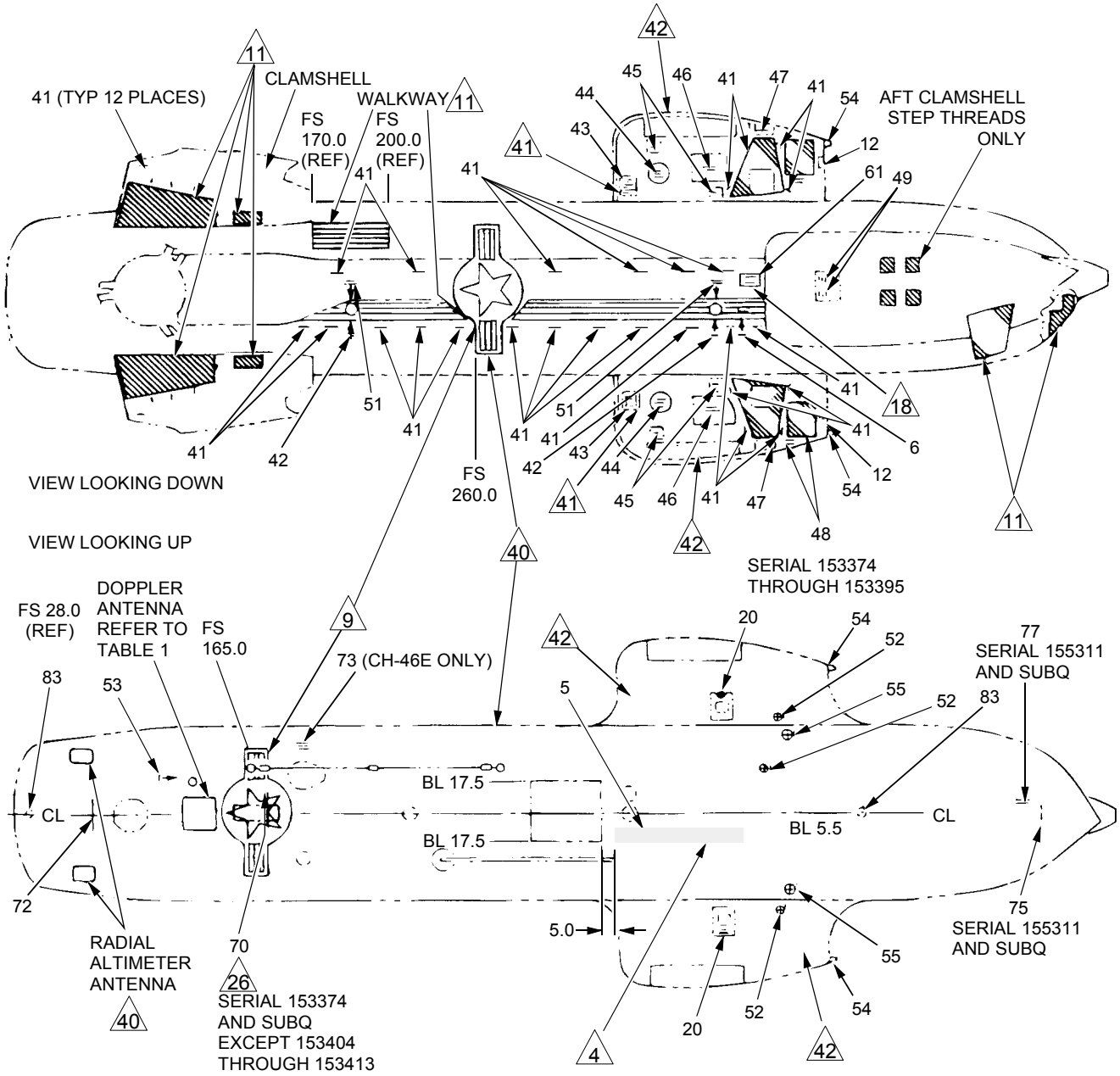
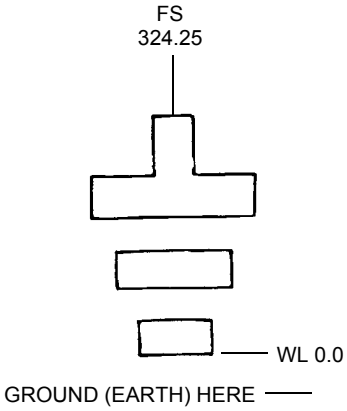
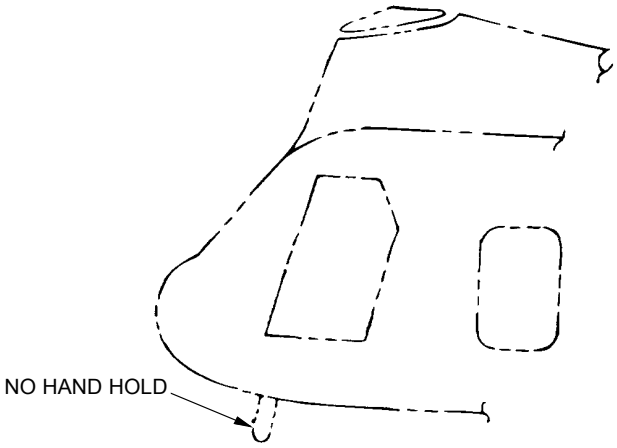


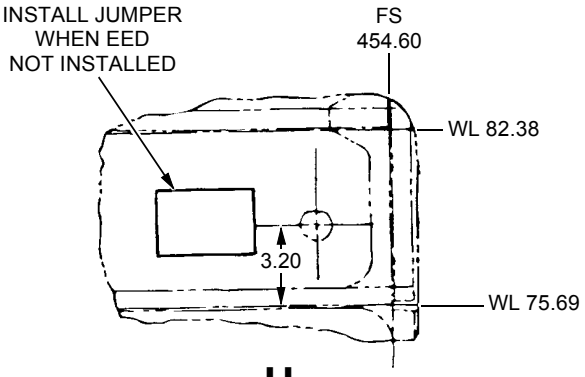
Figure 1. External Marking and Finishing - General (Sheet 7)



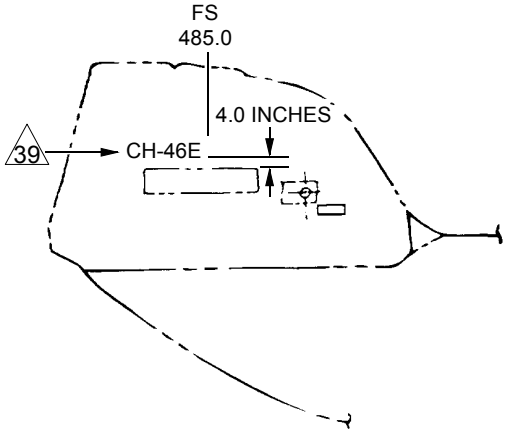
S
(CH-46E)
STENCIL FOR GROUND CONNECTION 39



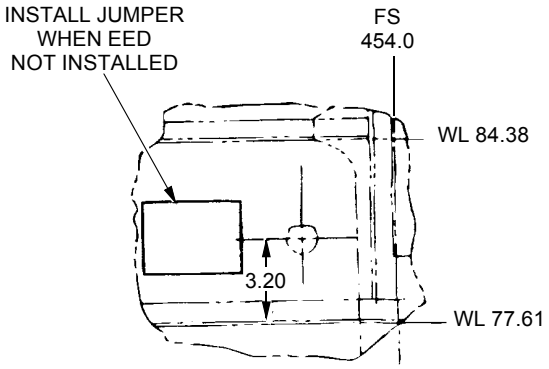
T
(CH-46E)
STENCIL ON FM HOMING ANTENNA 37



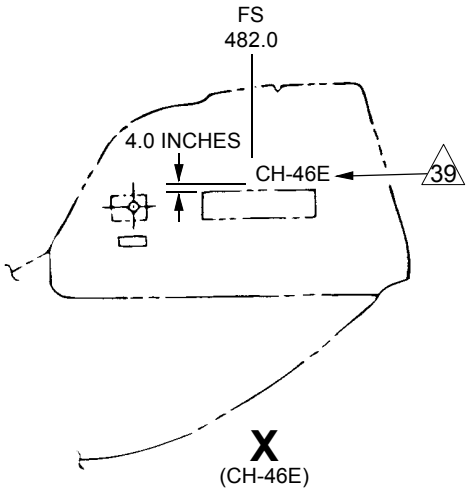
U
(CH-46E)
STENCIL FOR ELEC EED PLUG, RIGHT SIDE 36



V
(CH-46E)



W
(CH-46E)
STENCIL FOR ELECTRIC EED PLUG, LEFT SIDE 36



X
(CH-46E)

Figure 1. External Marking and Finishing - General (Sheet 8)

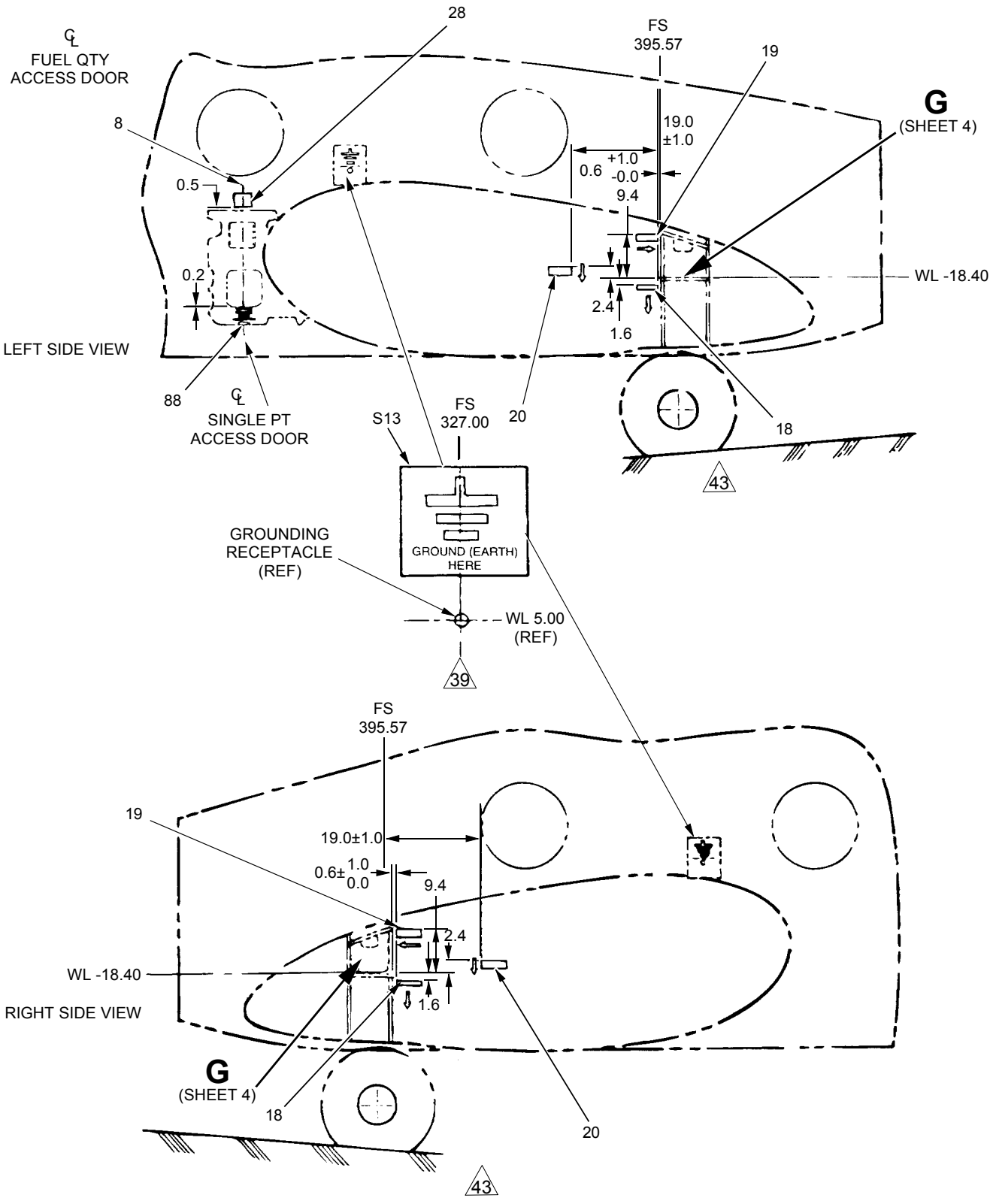


Figure 1. External Marking and Finishing - General (Sheet 9)

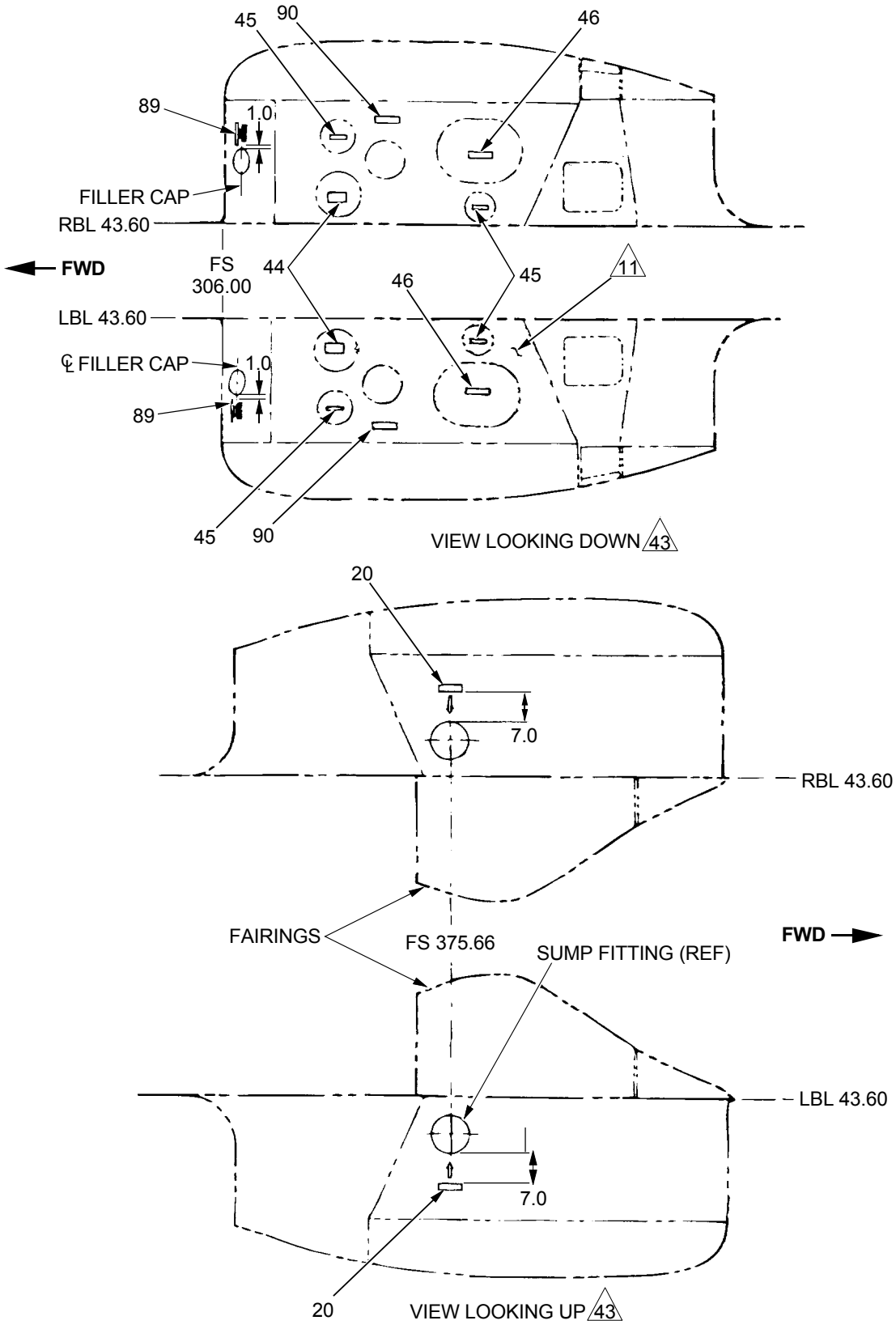


Figure 1. External Marking and Finishing - General (Sheet 10)

GROUND TEST DATA
UTILITY SYSTEM/HYD

SET GRD TEST RSVR PRESSURIZING VALVE TO 50 PSI
SET GRD TESTSTAND RELIEF VALVE TO 3950 PSI
SET GRD TESTSTAND VOLUME OUTPUT TO 11 GPM
SET GRD TESTSTAND PRESS COMPENSATOR TO 3500 PSI
USE HYD FLUID CONFORMING TO SPEC MIL-H-83282

Y

GROUND TEST DATA
HYD FLT CONTROL SYS I

SET GRD TEST RSVR PRESSURIZING VALVE TO 0 PSI
SET GRD TESTSTAND RELIEF VALVE TO 1750 PSI
SET GRD TESTSTAND VOLUME OUTPUT TO 4 GPM
SET GRD TESTSTAND PRESS COMPRESSOR TO 1500 PSI
USE HYD FLUID CONFORMING TO SPEC MIL-H-83282

Z

INDEXED STENCILS FOR FIGURE 1 △2

1. WORK PLATFORM
2. HOIST PT INSIDE
3. PULL TAPE OUT
   PUSH PANEL IN
4. FUEL CELL VENT
5. MARINES (ALL EXCEPT UH NAVY MODELS)
   NAVY (UH-46D NAVY MODELS)
6. HAND GRIP
7. OIL TANK VENT
8. OIL FILLER
9. THRUST BRG
10. HYD TEST OUTLETS
11. LEFT
12. STEP
13. ENGINE DRAINS & VENTS
14. RAMP CONT
15. XMSN OIL FILL
16. TOW PT
17. TIRE PRESS 150 PSI
    (AUXILIARY GEAR SHOCK STRUTS)
    TIRE PRESS 180 PSI
    (MAIN GEAR SHOCK STRUTS)
18. LG JACK PT
19. HOIST & MOORING PT
20. SUMP DRAIN & DEFUEL VALVE
21. FUEL CELL INSTL
22. FUEL QTY INDICATOR
23. FUS JACK PT
24. TOW MOORING JACK PT
25. PUSH TRIGGER TURN HANDLE (HH-46D)
26. PUSH TRIGGER TURN HANDLE PULL DOOR OUT
27. PUSH BUTTON TURN HANDLE
    PUSH HANDLE IN AND ROTATE TO STOW
    LIFT DOOR
28. FUEL QTY IND & PRECHECK PANEL
29. WORK PLATFORM
30. APU PLATFORM
31. APU INSPECTION
32. APU DRAINS
33. EXT PWR RECP
34. HYD OIL COOLER
35. CUT HERE FOR
36. AIR COND INLET
37. HYD TEST OUTLETS
38. JACK PT
39. TOW & MOORING PT
40. ELECTRONIC COMPT
41. NO STEP
42. MAIN DAVIT
43. GRAVITY FILLER CAP. 178 U.S. GAL SERVICE PER A1-H46AE-GAI-000 (CH-46E) (OR) GRAVITY FILLER CAP. 190 U.S. GAL SERVICE WITH MIL-T-5624 FUEL GR NO. JP-4 OR JP-5 (HH-46D/UH-46D)
44. HIGH LEVEL SHUT-OFF VALVE
45. TANK UNIT

Figure 1. External Marking and Finishing - General (Sheet 11)

INDEXED STENCILS FOR FIGURE 1 △2 (CONTINUED)

46. FUEL CELL INSPECT
47. OPEN FOR HOIST
48. BAT & RELAY
49. CAP 2.1 U.S. GAL SERVICE WITH MIL-L-23699 OIL
50. PUSH TRIGGER
51. INSTL COVER BEFORE FLIGHT
52. FUEL DRAIN
53. JACK PAD
54. FUEL JETTISON
55. JACK PT
56. PRESS, FUELING CAP. 380 U.S. GAL SERVICE PER A1-H46AE-GAI-000 55 PSI MAX
57. EMERGENCY RESCUE
58. CAUTION HIGH TEMP
59. DO NOT PLUG OR DEFORM HOLES AREA WITHIN CIRCLE MUST BE SMOOTH AND CLEAN
60. EXTERNAL PHONE
61. STEP HERE
62. PARTICLE COLLECTOR CLEANOUT
63. DO NOT PLUG OR DEFORM HOLES AREA WITHIN OVAL MUST BE SMOOTH AND CLEAN
64. ACCESS TO ENGINE WATER WASH RECEPTACLES
65. STATIC PORT
66. DANGER HIGH VOLTAGE
67. USE MIL-L-23699
68. HF COUPLER
69. HF ANTENNA
70. AN/APN-154 ANTENNA
71. TO SERVICE OLEO SEE INSTRUCTIONS ON THE INSIDE OF THIS PANEL
72. IFF/APX ANTENNA
73. ACCESS TRANSFER ALIGN RECP.
74. GYRO TRANSFER ALIGNMENT PLATE CAUTION. USE FOR GYRO ALIGNMENT ONLY
75. PULLEY ATTACH
76. XMSN BOLT ACCESS
77. RESCUE PULLEY WIRING SUPPORT
78. MARINES OR NAVY
79. HH-46D/UH-46D/CH-46D/CH-46E
80. PULL TAPE OUT PUSH PANEL IN (152490 AND SUBSEQUENT)
81. TURN HANDLE
82. PULL HOSE TO CHECK COUPLING ENGAGEMENT INSTALL DUST CAPS AFTER DISENGAGING HOSES
83. COMPASS SWING POINT TYPICAL AT STA 39 AND 410 ON OF ℄ HELICOPTER (CH-46E)
84. NO STEP (CH-46E)
85. COMBUSTOR PWR TURBINE TAILPIPE FUEL CONTROL FUEL PUMP STA VA ACT FLOW DIVIDER SEL VALVE SCUPPER OIL TANK SCUPPER STARTER
86. COMBUSTOR PWR TURBINE TAILPIPE FUEL CONTROL FLOW DIVIDER FUEL PUMP STA VA ACT STARTER
87. DO NOT USE WHEN ROTORS ARE TURNING
88. PRESS FUELING CAP 660 U.S. GAL SERVICE PER A1-H46AE-GAI-000 55 PSI MAX
89. GRAVITY FILLER CAP 330 U.S. GAL SERVICE PER A1-H46AE-GAI-000
90. ACCESS FUEL CELL INSTL

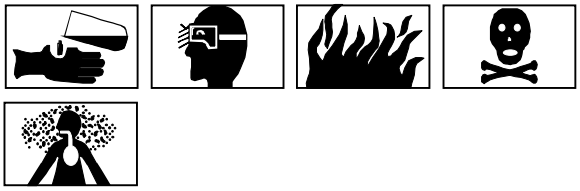
Figure 1. External Marking and Finishing - General (Sheet 12)

WARNING

CONSULT HMWS PAGES FOR APPROPRIATE PRECAUTIONS AND SAFETY REQUIREMENTS FOR MATERIALS USED FOR HELICOPTER EXTERNAL MARKING AND FINISHING.

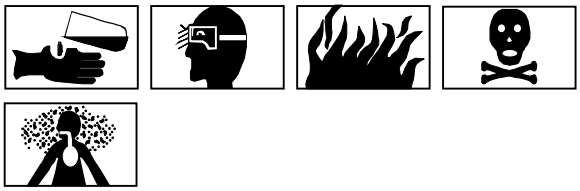
NOTES:

1. ALL DIMENSIONS ARE IN INCHES.



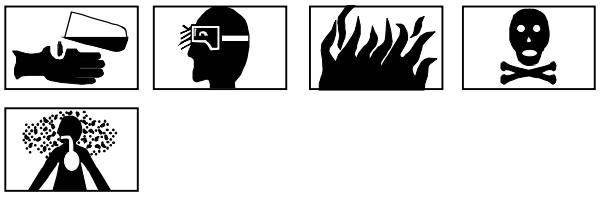
POLYURETHANE COATING, HIGH SOLIDS 32

2. ALL STENCIL LETTERING AND NUMERALS MUST BE 1/2 INCH HIGH AND IAW MIL-I-18464. UNLESS OTHERWISE NOTED, COLORS ARE IAW FED-STD-595. USE GLOSSY INSIGNIA WHITE (COLOR 17875) ON GREEN SURFACES AND GLOSSY BLACK (COLOR 17038) ON PRIMED OR LIGHT COLOR SURFACES. LETTERS MUST BE UPPER CASE, VERTICAL AND BLOCK, NUMERALS ARABIC, AND ADDITIONAL ABBREVIATIONS IF REQUIRED MUST BE IAW MIL-STD-12. DECALCOMANIAS IAW MIL-D-8634 MAY BE USED INSTEAD OF STENCILING.
3. REFER TO TEXT FOR INFORMATION ON REFINISHING THE EXTERIOR SURFACES.
4. LETTERING AND NUMERAL DIMENSIONS MUST BE 9 INCHES HIGH AND 2 INCHES APART.
5. THE NUMBER SHOWN IS FOR REFERENCE ONLY. DIMENSIONS OF ASSIGNED NUMBER MUST BE 4 INCHES HIGH AND 13/16 INCH APART.
6. MODEL LETTERING AND NUMBER MUST BE 2 INCHES HIGH AND 1/32 INCH APART.
7. REPLACE WITH A NEW DECAL (A02E5022-7).
8. REPLACE WITH A NEW DECAL (A02E5022-5).
9. ON UH-46D HELICOPTERS 153374 THRU 154844, THE NATIONAL INSIGNIA, ON THE UNDERSIDE OF THE HELICOPTER, IS LOCATED AT FS 127. ON CH-46E HELICOPTERS 154845 THRU 156437 IT IS LOCATED AT FS 190. ON CH-46E HELICOPTERS 156438 AND SUBQ, IT IS LOCATED AT FS 194. ON ALL HELICOPTERS, THE NATIONAL INSIGNIA ON TOP OF THE HELICOPTER IS LOCATED AT FS 260. NATIONAL INSIGNIA COLORS AND DIMENSIONS MUST BE IAW NAS1082, TYPE K. DO NOT PAINT THAT AREA OF THE INSIGNIA WHICH EXTENDS OVER THE UHF ANTENNA ON THE TOP AND THE AN/APN-154 ANTENNA ON THE BOTTOM OF THE HELICOPTER.



POLYURETHANE COATING, HIGH SOLIDS 32

10. STRIPE (TYPICAL) IS 1 INCH WIDE BY LENGTH SHOWN AND GLOSSY ORANGE-YELLOW (COLOR 13538).

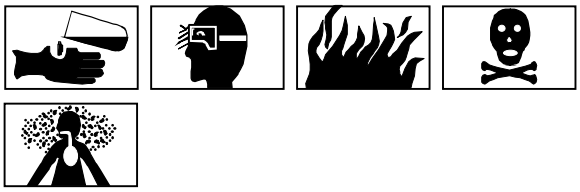


WALKWAY COMPOUND 31

11. REAPPLY BLACK WALKWAY COMPOUND (COLOR 37038) TO THE ENTIRE AREA, IAW MIL-W-5050.
12. VIEW SHOWN IS LOOKING FORWARD AND IS TYPICAL FOR BOTH LEFT AND RIGHT SIDES OF HELICOPTER.
13. ARROW SHOWN IS TYPICAL OF ALL CLOCKWISE DIRECTION ARROWS, COUNTERCLOCKWISE ARROWS ARE THE SAME DIMENSIONS, BUT REVERSE OF ARROW SHOWN.

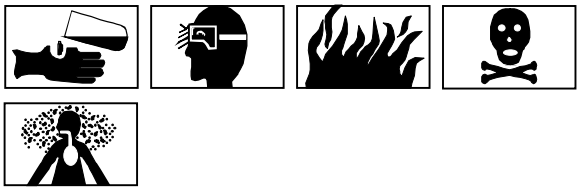
Figure 1. External Marking and Finishing - General (Sheet 13)

NOTES (CONTINUED):



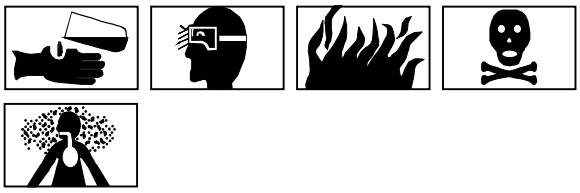
POLYURETHANE COATING, HIGH SOLIDS 32

14. HANDLE TO BE GLOSSY ORANGE-YELLOW (COLOR 13538).



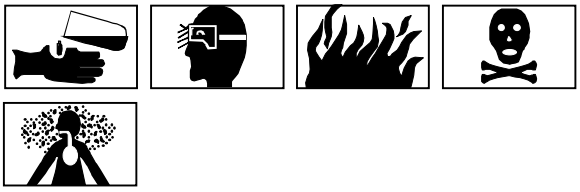
POLYURETHANE COATING, HIGH SOLIDS 32

15. PAINT 1/2 INCH WIDE RED CIRCLE (COLOR 11136) AROUND THE YAW AND STATIC PORTS. DO NOT PAINT STATIC PORTS.
16. LETTERING MUST BE 3/16 INCH HIGH.
17. REPLACE WITH A NEW DECAL (A02E5022-6).



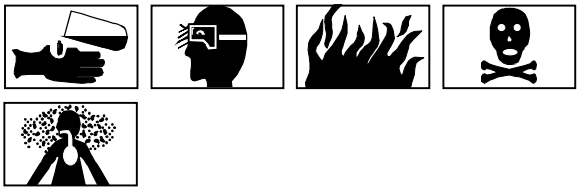
POLYURETHANE COATING, HIGH SOLIDS 32

18. PAINT BORDER 1 1/2 INCH WIDE, 6 INCHES LONG, AND 4 INCHES WIDE, GLOSSY ORANGE-YELLOW (COLOR 13538).



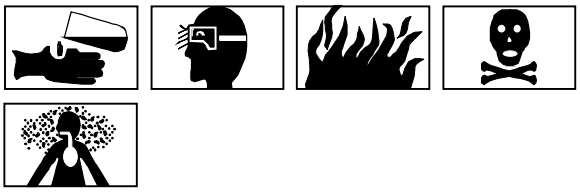
POLYURETHANE COATING, HIGH SOLIDS 32

19. ON UH-46D HELICOPTERS, PAINT THE NOSE ENCLOSURE BENEATH THE WINDSHIELDS WITH A 10 INCH BLACK BAND (COLOR 37038).
20. REFER TO EXHAUST TRAIL AREAS, THIS WP, AND APPLY ONE EXTRA COAT OF THE APPLICABLE FINISH TO THE ENGINE EXHAUST TRAIL AREAS DESIGNATED ON THE ILLUSTRATION.
21. DASH NUMBER OF ARMOR SUPPORT BRACKETS ARE STENCILED ON THE HELICOPTER AFT PYLON AT THE BRACKET LOCATIONS. IN THE ILLUSTRATION, THE LEFT DASH NUMBER IS SHOWN; RIGHT DASH NUMBER IS SHOWN IN PARENTHESES ADJACENT TO THE CORRESPONDING LEFT DASH NUMBER.



POLYURETHANE COATING, HIGH SOLIDS 32

22. PAINT 1/2 INCH RED OVAL (COLOR 11136) AROUND THE STATIC PORTS.
23. THE HELICOPTERS SERIAL NUMBER ON BOTH SIDES OF THE AFT PYLON STARTS AT FS 513.5. THE BOTTOM OF THE NUMERALS IS AT WL 93.

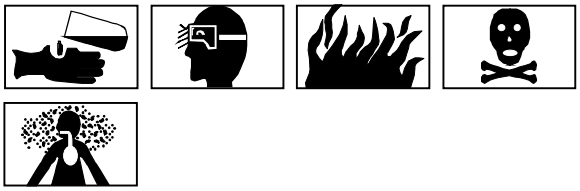


POLYURETHANE COATING, HIGH SOLIDS 32

24. ON ALL HELICOPTERS EXCEPT UH-46D HELICOPTERS, DANGER HIGH VOLTAGE IS AT THREE LOCATIONS: OUTSIDE ON THE LEFT AND RIGHT SIDES AT FS 549, WL 77 AND INSIDE THE PYLON AT FS 549, WL 77 RIGHT-HAND-SIDE ONLY. LETTERING IS 1 INCH HIGH GLOSS WHITE (COLOR 17875) IAW FED-STD-595.

Figure 1. External Marking and Finishing - General (Sheet 14)

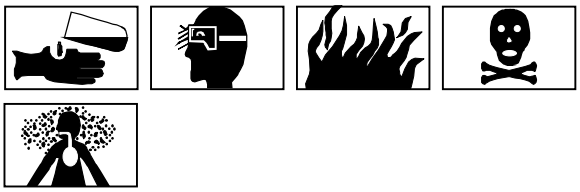
NOTES (CONTINUED):



POLYURETHANE COATING, HIGH SOLIDS 32

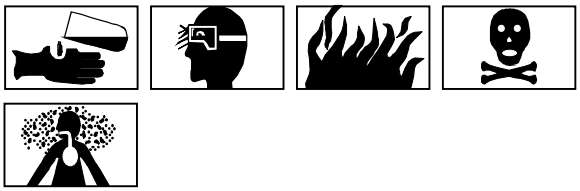
25. AN/APN-154 ANTENNA MUST BE 1/4 INCH HIGH LETTERING GLOSSY BLACK (COLOR 17038). REFER TO ANTENNAS, THIS WP, FOR REFINISHING OF ANTENNAS.

△26 BAT. & RELAY AND DIRECTIONAL ARROW ARE MARKED IN RED LETTERS (COLOR 11136) 3/4 INCH HIGH.



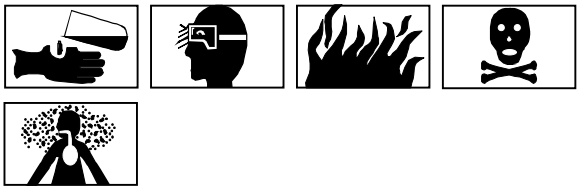
POLYURETHANE COATING, HIGH SOLIDS 32

△27 ON HELICOPTERS 154017 AND SUBQ, STENCIL 1/4 INCH WHITE LETTERS (COLOR 17875) IAW FED-STD-595.



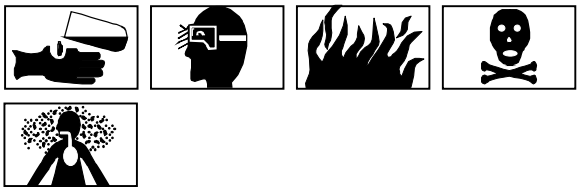
POLYURETHANE COATING, HIGH SOLIDS 32

△28 ALL STENCILS SHOULD BE PAINTED WITH POLYURETHANE COATING.



POLYURETHANE COATING, HIGH SOLIDS 32

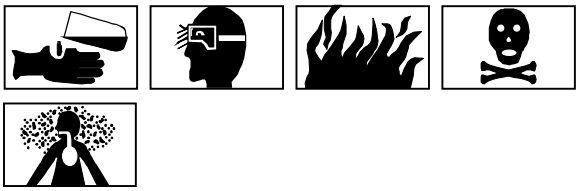
△29 ALL STENCILS SHOULD BE PAINTED WITH POLYURETHANE COATING.



POLYURETHANE COATING, HIGH SOLIDS 32

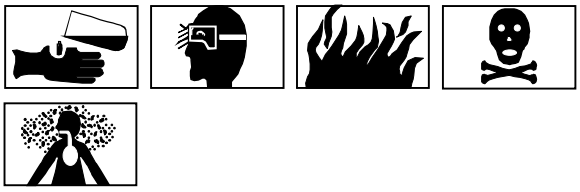
△30 ALL STENCILS SHOULD BE PAINTED WITH POLYURETHANE COATING.

△31 DETAIL G, INSTRUCTION PLATE (A02L1318-2), IS ON THE INSIDE OF THE LEFT AND RIGHT MAIN ALIGHTING GEAR ACCESS FAIRING PANELS. WHEN NECESSARY, REPLACE THIS PLATE AS DIRECTED IN A1-H46AE-110-000, WP 016 00.



POLYURETHANE COATING, HIGH SOLIDS 32

△32 STENCIL 1/4 INCH WHITE LETTERS (COLOR 17875) IAW FED-STD-595 ON INSIDE OF ACCESS PANEL. POSITION STENCIL SO THAT IT IS READABLE WHEN PANEL IS OPEN.



POLYURETHANE COATING, HIGH SOLIDS 32

△33 BROKEN BAND TO BE IN SEGMENTS EQUALLY SPACED. USE GLOSS ORANGE-YELLOW (COLOR 13538) IAW FED-STD-595.

△34 HYDRAULIC CONNECTIONS FOR ENGINE EXHAUST DEVICE ON CH-46E.

Figure 1. External Marking and Finishing - General (Sheet 15)

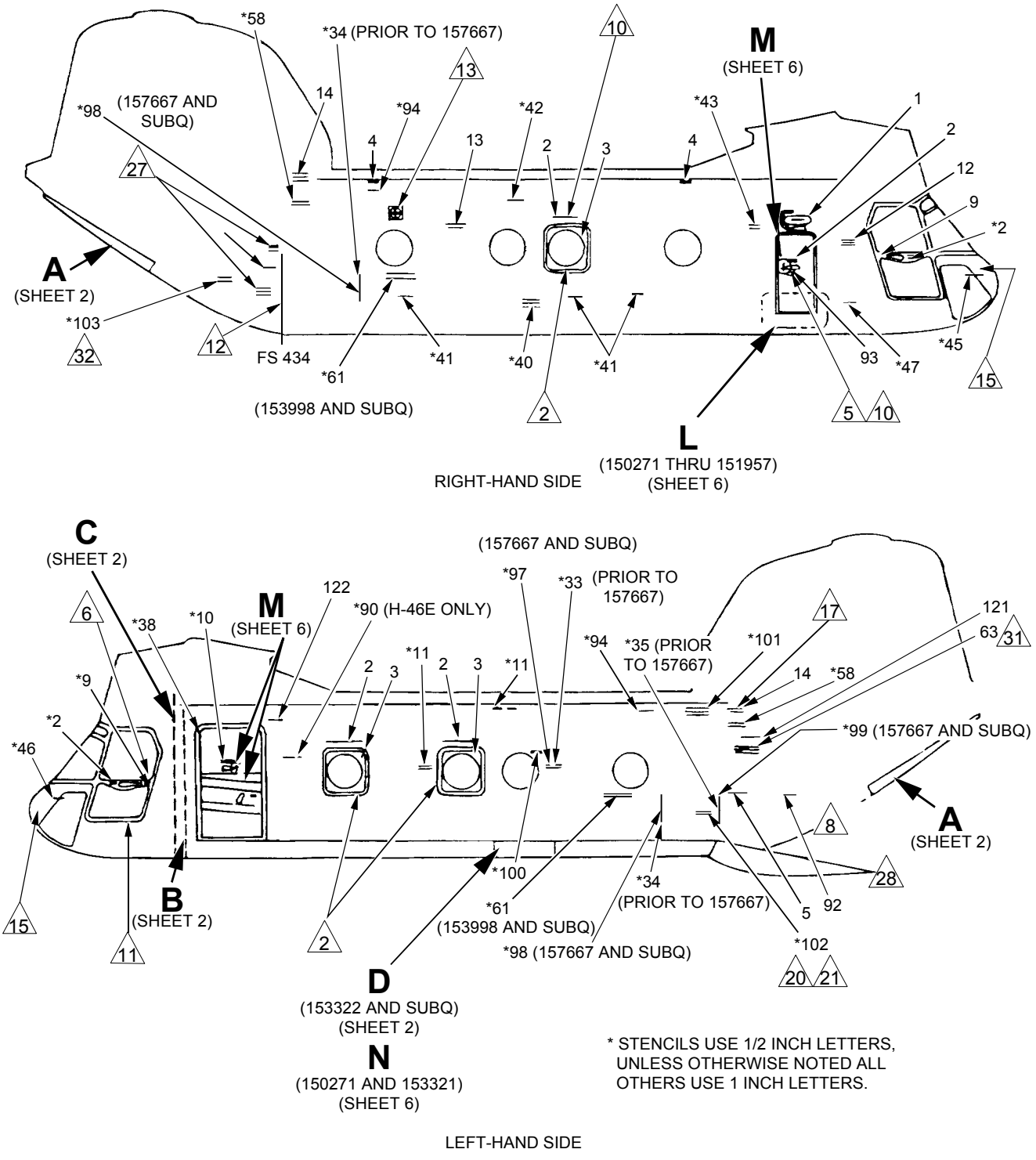
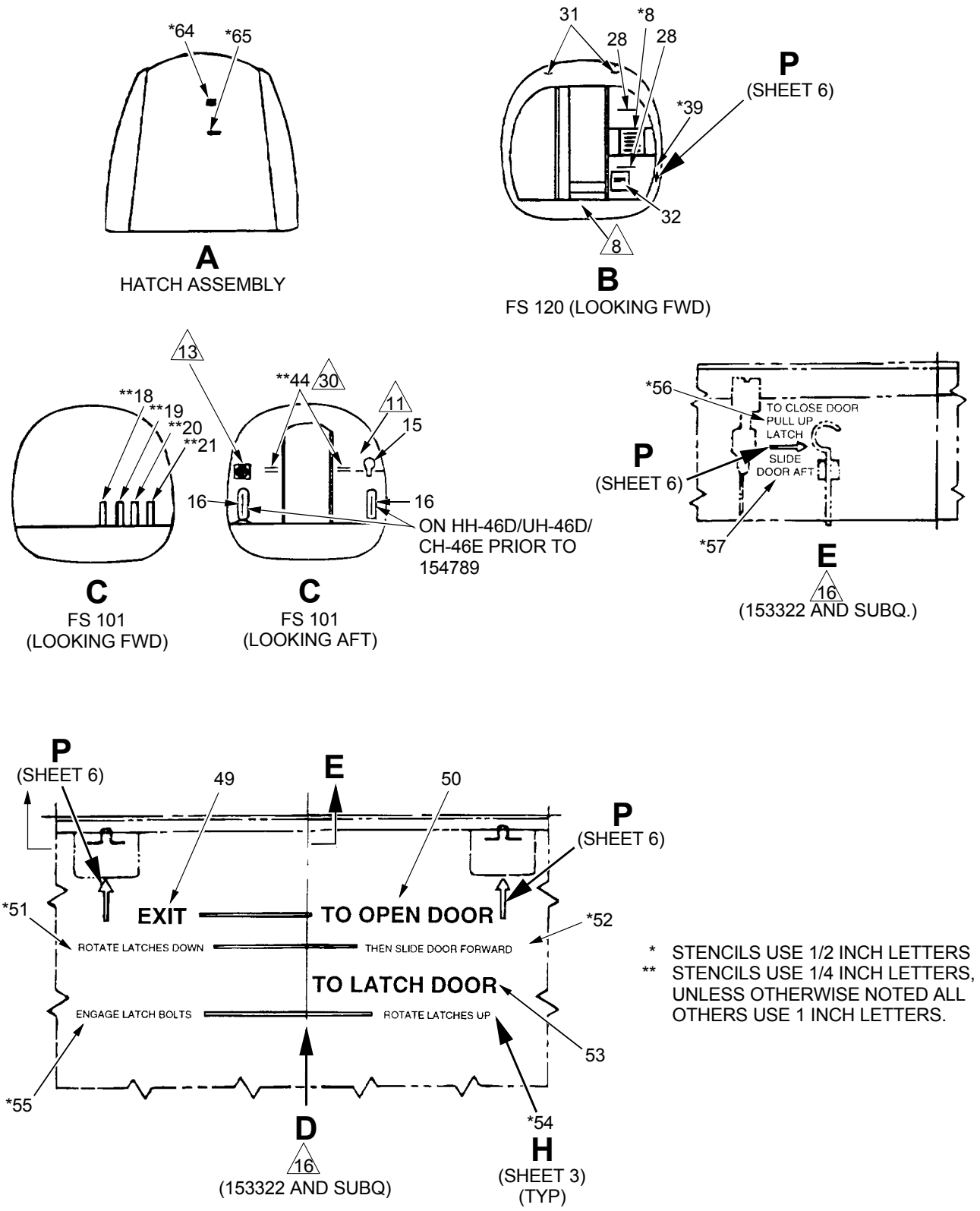


Figure 2. Internal Marking and Finishing (Sheet 1 of 13)



* STENCILS USE 1/2 INCH LETTERS
** STENCILS USE 1/4 INCH LETTERS, UNLESS OTHERWISE NOTED ALL OTHERS USE 1 INCH LETTERS.

Figure 2. Internal Marking and Finishing (Sheet 2)

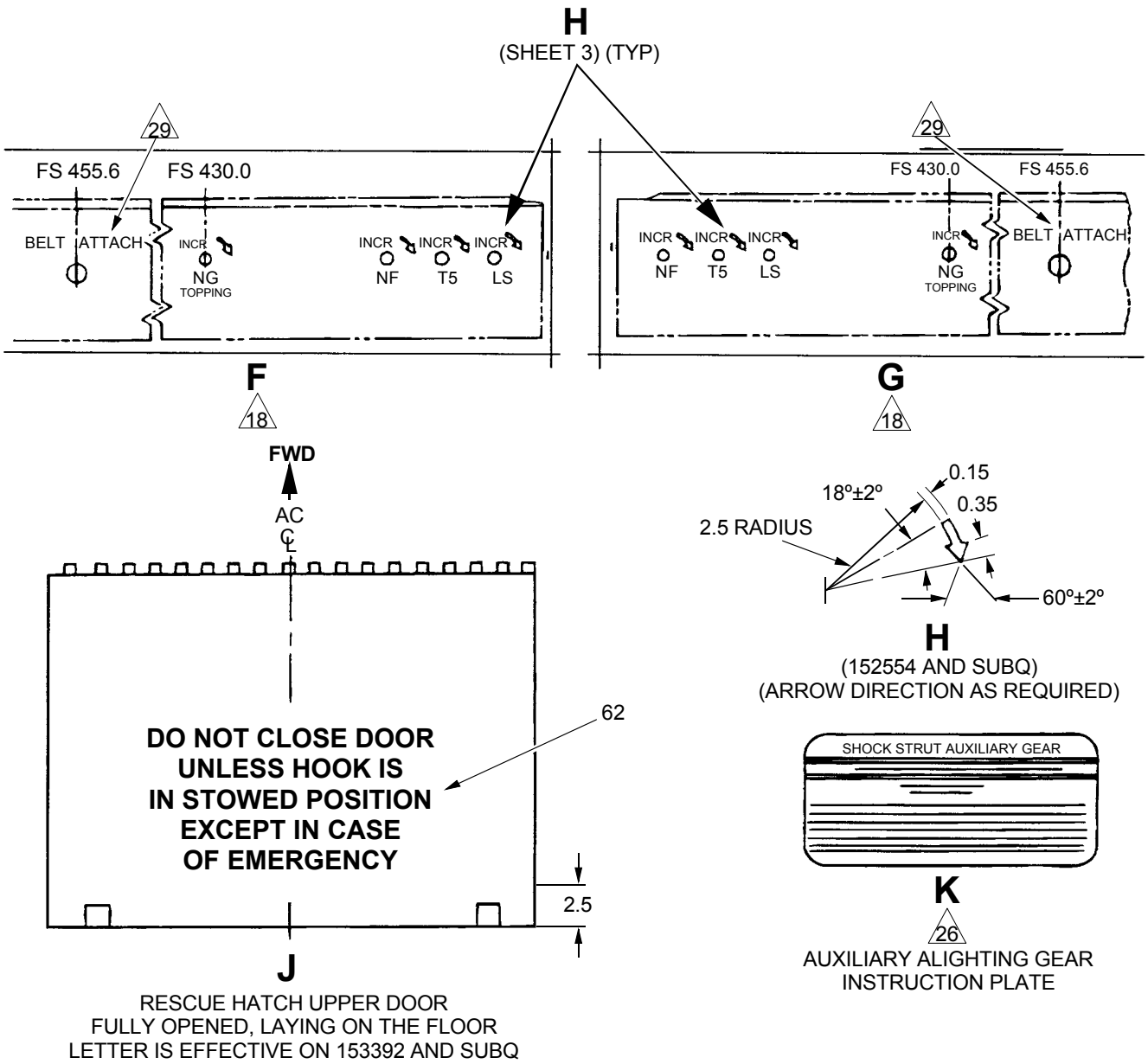


Figure 2. Internal Marking and Finishing (Sheet 3)

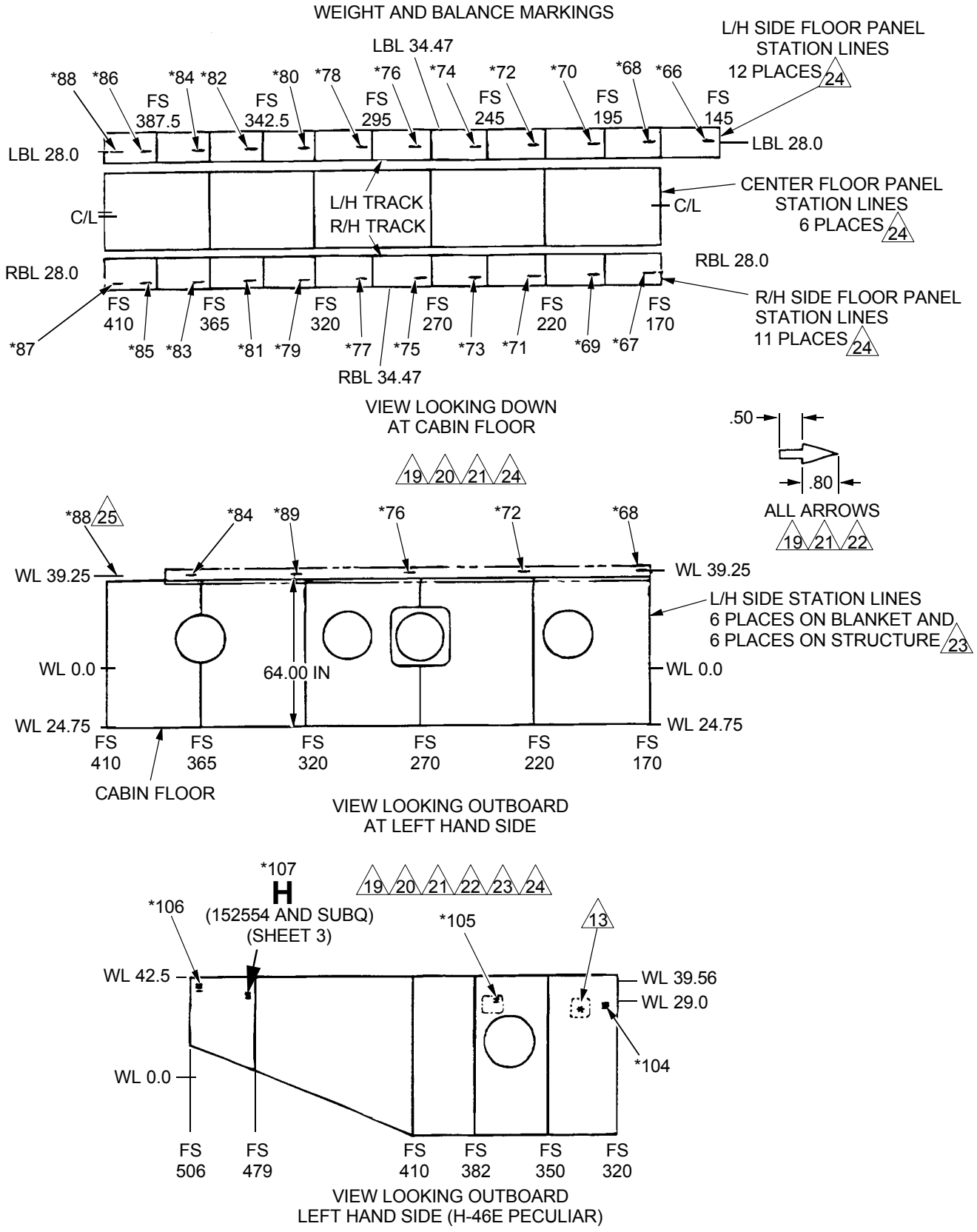
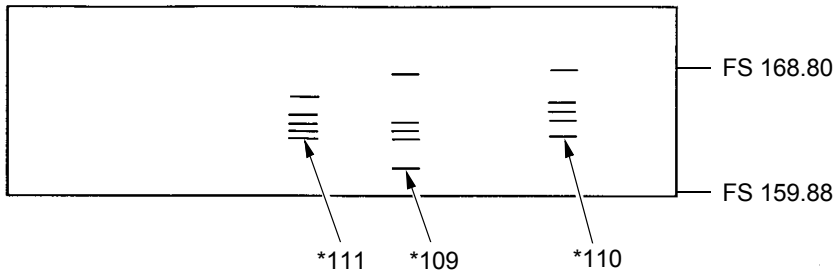
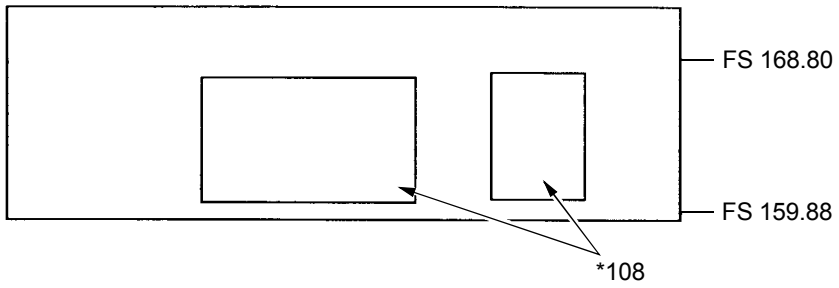


Figure 2. Internal Marking and Finishing (Sheet 4)



OVERHEAD BLANKET - FLAPS OPEN
(LOOKING UP) (HH-46D, CH-46E)



OVERHEAD BLANKET - FLAPS CLOSED
(LOOKING UP) (HH-46D, CH-46E)

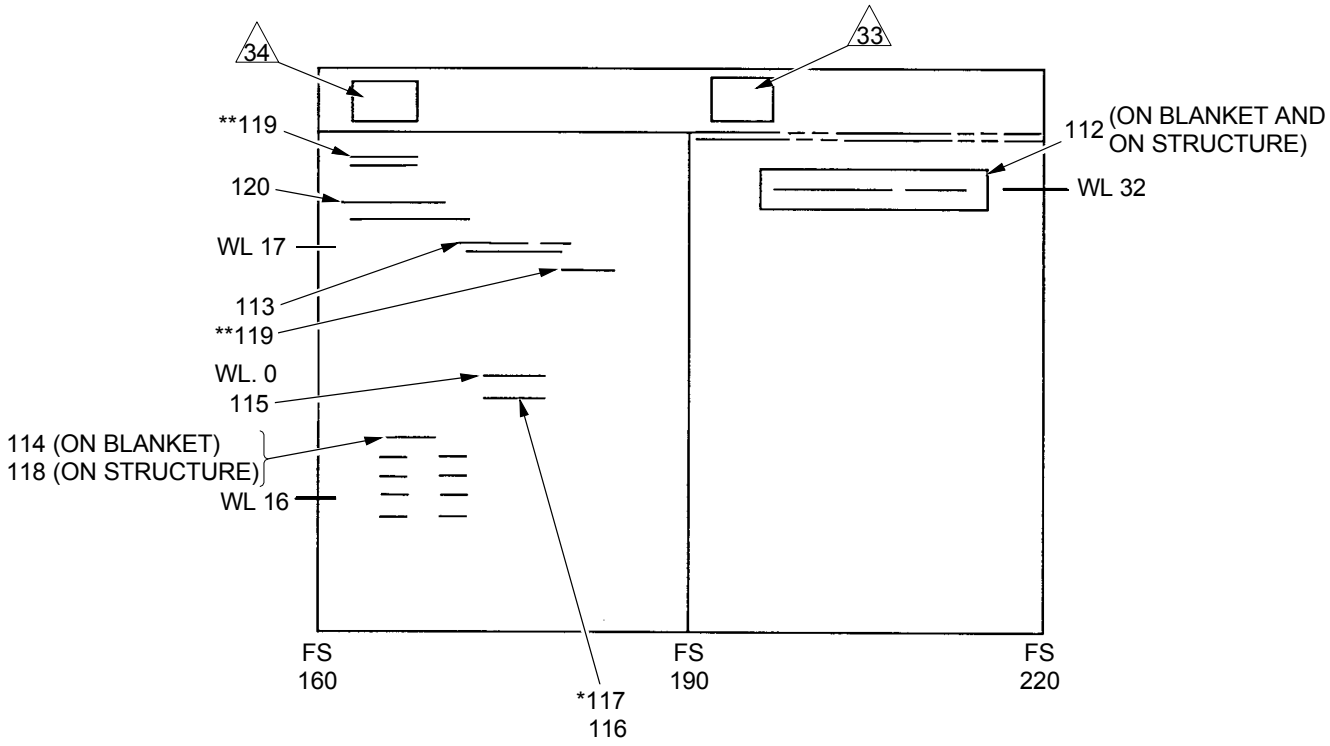


Figure 2. Internal Marking and Finishing (Sheet 5)

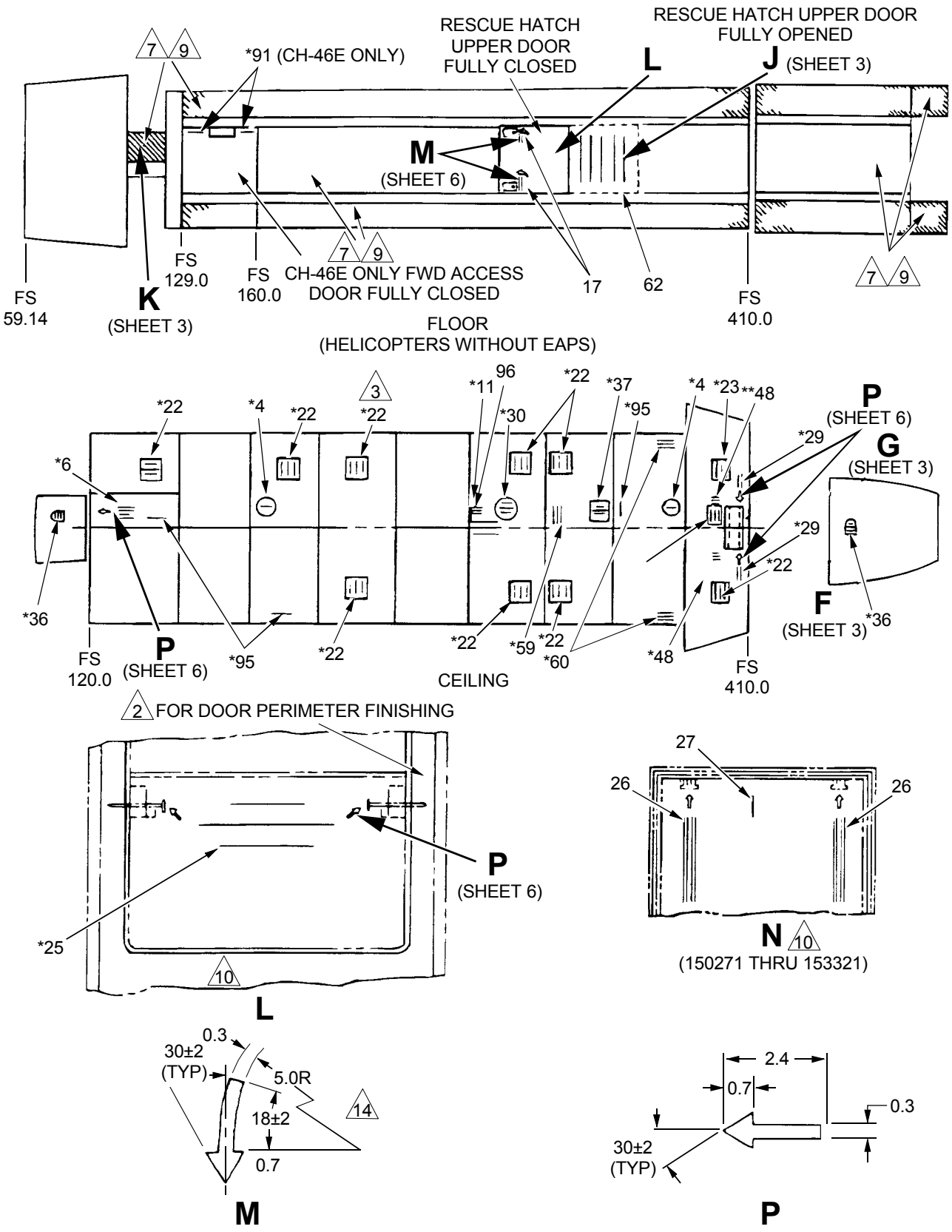


Figure 2. Internal Marking and Finishing (Sheet 6)

INDEXED STENCILS FOR FIGURE 2 △1 △6

SINGLE ASTERISKED STENCILS ARE 1/2 INCH
DOUBLE ASTERISKED STENCILS ARE 1/4 INCH

1. FIRE EXTINGUISHER
2. EMERGENCY EXIT △9 △31
3. PULL TAPE OUT - PUSH PANEL
*4. CRANE ACCESS
5. W.L.O.
*6. RESCUE HOIST
CARGO LOADING WINCH CAPACITY
RESCUE HOIST 600 LBS 100 FPM
CARGO LOADING 2000 LBS 30 FPM
7. APU EMERGENCY
FUEL SHUTOFF VALVE
*8. TIE-DOWN RATINGS (POUNDS)
CENTER OF ACFT 2000
SEAT RAIL 1250
OUTBOARD 5000
WINCHING TIE-DOWNS
STA 126.5 AND BL 12.25-5000
*9. TURN HANDLE DOWN
10. TURN HANDLE LIFT DOOR
*11. PULLEY ATTACH
12. MAIN POWER DISTRIBUTION PANEL
13. HOIST OPERATOR SHACKLE
14. EMERGENCY FUEL SHUTOFF VALVE
15. SIGNAL LIGHT
16. OXYGEN (PAINTED VERTICALLY)
17. LIFT AND TURN HANDLE TO OPEN
18. YAW
**19. COLL
**20. ROLL
**21. PITCH
*22. LITTER STRAP STOWAGE
*23. CROSSED VALVE ACCESS
*24. BEARING INSPECTION
ACCESS TO ENGINE INLET
SECONDARY AIR FLOW
SHUT OFF VALVE
*25. PUSH TO LOCK PINS FOR DITCHING
OVER WATER
26. PUSH LATCH BUTTON TO RELEASE
DOOR
27. EXIT
28. CONTROLS ACCESS
*29. LITTER STRAP ATTACH POINT
*30. ACCESS CABLE CUTTER DISCONNECT
31. STA 120.0
32. DO NOT OCCUPY SEAT DURING TAKE-OFF
OR LANDING
*33. BRIDLE STOWAGE
*34. TIE DOWN PIN STOWAGE (PRINTED
VERTICALLY ON AFT SIDE OF FRAME AT
STA 382)
*35. SPREADER BAR STOWAGE (PRINTED
VERTICALLY ON AFT SIDE OF FRAME AT
FS 410)
*36. ACCESS MAGNETIC PLUG
*37. STOWAGE BOX HOIST EXTENSION CORD
AND GRIP
*38. LEVELING BAR
*39. LEVELING PLATE
*40. PRESSURE FUELING DISCONNECT EXTENDED
RANGE
*41. UT RECEPTACLES
*42. FUEL VENT
*43. SWITCHES UTILITY RECP

Figure 2. Internal Marking and Finishing (Sheet 7)

INDEXED STENCILS FOR FIGURE 2 △1 △6 (CONTINUED)

SINGLE ASTERISKED STENCILS ARE 1/2 INCH
DOUBLE ASTERISKED STENCILS ARE 1/4 INCH

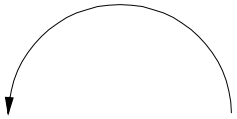
*44. 115V AC UTILITY RECEPTACLE
*45. AFCS BOX NO. 1
*46. AFCS BOX NO. 2 VALVE ACCESS
*47. ASE CIRCUIT BOX
**48. SECONDARY AIR FLOW SHUTOFF VALVE PUSH TO CLOSE
49. EXIT
50. TO OPEN DOOR
*51. ROTATE LATCHES DOWN
*52. THEN SLIDE DOOR FORWARD
53. TO LATCH DOOR
*54. ROTATE LATCHES UP
*55. ENGAGE LATCH BOLTS
56. TO CLOSE DOOR PULL UP LATCH
*57. SLIDE DOOR AFT
*58. FUEL FILTER
*59. HOT MIKE HOIST CONTROL CABLE CUTTER
*60. ENGINE AIR INLET BYPASS PULL TO OPEN AND SECURE
*61. FUEL VENT SAND CANISTER
*62. DO NOT CLOSE DOOR UNLESS HOOK IS IN STOWED POSITION EXCEPT IN CASE OF EMERGENCY
*63. AFT HATCH VALVE HANDLE
1. DO NOT OPERATE WHEN HATCH ATTACHED IN GUST LOCK POSITION
2. LEAVE IN "HATCH OPEN" POSITION DURING RESCUE THROUGH THE RAMP
*64. GUST LOCK POSITION
*65. OPERATING POSITION
*66. FUS STA. 145.00→
*67. COMP. "C" CENTROID
← FUS. STA. 170.0
CAPACITY 6840 LB
*68. COMP. "C" CENTROID
FUS. STA. 170.0 →
CAPACITY 6840 LB
*69. ← FUS. STA. 195.0
*70. FUS. STA. 195.0→
*71. ← COMPT. LIMIT
FUS. STA. 220.0
*72. COMPT. LIMIT →
FUS. STA. 220.0
*73. ← FUS. STA. 245.0
*74. FUS. STA. 245.0→
*75. CAPACITY COMPT. D. CENTROID
6840 LB FUS. ← FUS. STA. 270.0
*76. COMPT. D. CENTROID CAPACITY
FUS. STA. 270.0→ 6840 LB
*77. ← FUS. STA. 295.0
*78. FUS. STA. 295.0→
*79. ← COMPT. LIMIT
FUS. STA. 210.0
*80. COMPT. LIMIT →
FUS. STA. 320.0
*81. ← FUS. STA. 342.5
*82. FUS. STA. 342.5→
*83. COMPT. "E" CENTROID
← FUS. STA. 365.0
CAPACITY 6150 LB
*84. COMPT. "E" CENTROID
FUS. STA. 365.0 →
CAPACITY 6150 LB
*85. ← FUS. STA. 387.5

Figure 2. Internal Marking and Finishing (Sheet 8)

INDEXED STENCILS FOR FIGURE 2 △1 △6 (CONTINUED)

SINGLE ASTERISKED STENCILS ARE 1/2 INCH
DOUBLE ASTERISKED STENCILS ARE 1/4 INCH

*86. FS 387.5 →
*87. COMPARTMENT LIMIT
FS 410.0 →
*88. COMPARTMENT LIMIT
← FS 410.0
*89. COMPARTMENT LIMIT
FS 320.0 →
*90. INTERPHONE STATION
*91. ACCESS-GYROS
AND RADAR ANTENNA
92. CAUTION SEE INSTRUCTIONS ON FILLER ASSEMBLY BEFORE SERVICING UTILITY HYDRAULIC SYSTEM △28
93. PULL TAPE OUT
PUSH PANEL (152490 AND SUBQ)
*94. ENG TRIN RECP
*95. GUNNERS INTERPHONE
*96. FOR RESCUE OPERATION INSTALL CABLE CUTTER PLUG. FOR CARGO HANDLING INSTALL SHORTING PLUG.
*97. BRIDLE STOWAGE PROV
*98. TIE DOWN PIN STO PROV (PRINTED VERTICALLY ON AFT SIDE OF FRAME AT FS 382)
*99. SPREADER BAR STOW PROV (PRINTED VERTICALLY ON AFT SIDE OF FRAME AT FS 410)
*100. ACCESS BRIDLE ASSEMBLY (UH 153410 THRU 153413, CH 153365 THRU 157666)
*101. LH RH
FAN MOTOR SENSOR
*102. GRAVITY FLOW FUEL DISCONNECT EXTENDED RANGE
*103. WATERTIGHT DAM STOWAGE
*104. THERMOCOUPLE AMPL AND RELAY BOX UNDER (CH-46E)
*105. POWER MANAGEMENT AMPLIFIER (CENTER OF FWD END OF FLAP ON BLANKET. ALIGN WITH AFT EDGE OF AMPLIFIER ON STRUCTURE) (R AND L SIDES ALL CH-46E HELICOPTERS)
*106. CAUTION
SERVICE FLIGHT CONTROL SYSTEM NO. 2 PRIOR TO OPERATING APU (CH-46E)
*107. TURN KNOB CCW FOR FLUID SAMPLE



*108. ACCESS RESCUE HOIST MANUAL CONTROLS
*109. AFT BOOM CONTROL VALVE FWD

*110. DOWN HOIST CONTROL VALVE UP

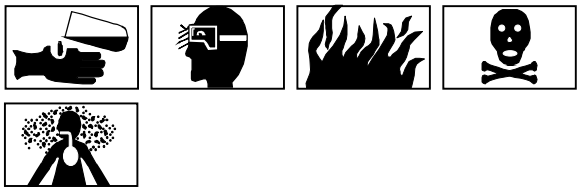
*111. HOIST BRAKE AND POWER VALVE
*112. EMERGENCY EXIT
*113. FOLD FOLD DOWN FOR ACCESS TO HOIST OPERATOR'S CONTROLS
*114. RESCUE BOOM COVER PLATE AND SEA ANCHOR BEHIND BLANKET
*115. WL 0.0
**116. GRIP READY STOWAGE (CH-46E)
*117. HOIST GRIP STOWAGE
*118. RESCUE BOOM COVER PLATE
**119.  REMOVE QUICK RELEASE PIN PRIOR TO OPERATING BOOM
*120. REMOVE BLANKET FOR HOIST OPERATIONS
*121. CHAFF SAFETY PIN
*122. HOVER CONTROLLER

Figure 2. Internal Marking and Finishing (Sheet 9)

WARNING

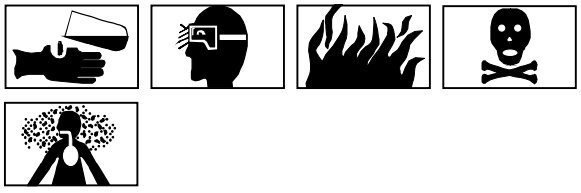
CONSULT HMWS PAGES FOR APPROPRIATE PRECAUTIONS AND SAFETY REQUIREMENTS FOR MATERIALS USED FOR HELICOPTER INTERNAL MARKING AND FINISHING.

NOTES:



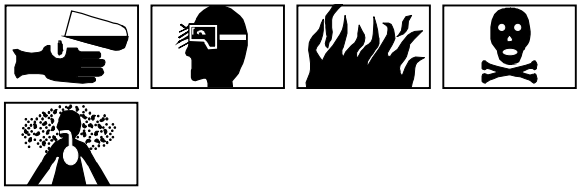
POLYURETHANE COATING, HIGH SOLIDS 32

1. ALL LETTERING MUST BE 1 INCH HIGH AND IAW MIL-I-18464 UNLESS OTHERWISE NOTED. COLORS ARE IAW FED-STD-595. USE GLOSSY INSIGNIA WHITE (COLOR 17875) FOR ALL LETTERING UNLESS OTHERWISE NOTED.



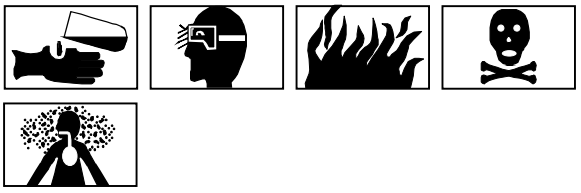
POLYURETHANE COATING, HIGH SOLIDS 32

2. 1 OR 2 INCH WIDE BAND TO MARK THE COMPLETE PERIPHERY OF EMERGENCY EXIT, HALF ON THE STRUCTURE, AND HALF ON THE PANEL, COLOR TO BE GLOSSY ORANGE-YELLOW (COLOR 13538).



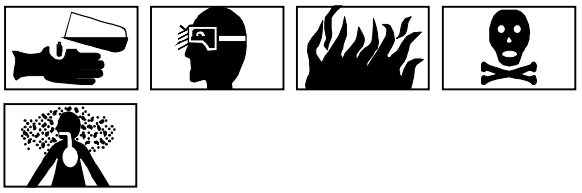
POLYURETHANE COATING, HIGH SOLIDS 32

3. MARKINGS COVERED BY BLANKETS TO BE REPEATED ON THE BLANKETS WITH COLOR 17038, INSTEAD OF COLOR 17875 USED ON STRUCTURE. MARKING ON STRUCTURE IN COLORS OTHER THAN COLOR 17875 SHALL BE REPEATED ON BLANKETS IN SAME SPECIFIC COLOR USED ON STRUCTURE. USE LETTERS OF THE SAME HEIGHT.
4. THE INTERIOR OF THE AIRCRAFT TO BE REFINISHED IAW MIL-C-8779 AND AS DIRECTED IN INTERIOR SURFACES - FUSELAGE, THIS WP.

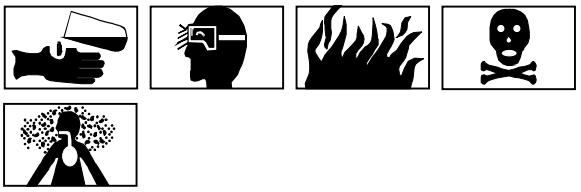


POLYURETHANE COATING, HIGH SOLIDS 32

5. ALL EMERGENCY EXIT HANDLES TO BE REFINISHED GLOSSY ORANGE-YELLOW (COLOR 13538).
6. MARKINGS TO BE CAPITAL LETTERS AND ARABIC NUMERALS 1/2 INCH HIGH AND SPACE BETWEEN LINES TO BE 1/4 INCH.



CELLULOSE-NITRATE THINNER 16

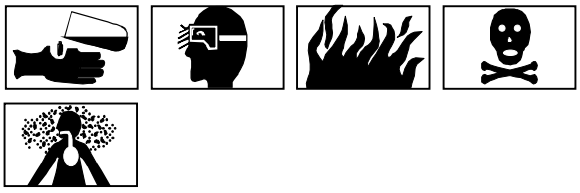


POLYURETHANE COATING, HIGH SOLIDS 32

7. BEFORE APPLYING WALKWAY COMPOUND TO THE CABIN, RAMP, AND PASSAGEWAY FLOOR AREA, CLEAN THE AREA WITH THINNER AND APPLY ONE COAT OF DARK LUSTERLESS GRAY (COLOR 36231) POLYURETHANE COATING IAW FED-STD-595 1/4 TO 1/2 INCH BEYOND ANY CHARACTER WHENEVER STENCILING WILL BE APPLIED. ALLOW 2 HOURS DRYING TIME, THEN APPLY THE STENCILS WITHIN THE DARK GRAY AREAS. IMMEDIATELY MASK THE ENTIRE DARK LUSTERLESS GRAY AREAS CONTAINING STENCILS.

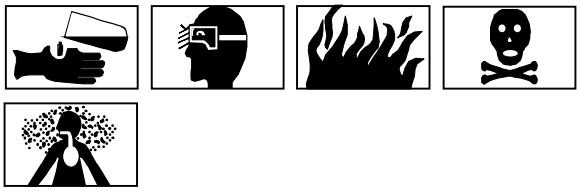
Figure 2. Internal Marking and Finishing (Sheet 10)

NOTES (CONTINUED):

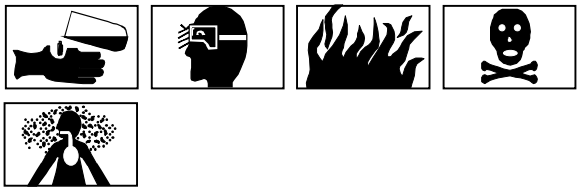


POLYURETHANE COATING, HIGH SOLIDS 32

8 REFINISH BULKHEAD AND CABIN AREA AFT OF FS 410 DARK LUSTERLESS GRAY (COLOR 36231).

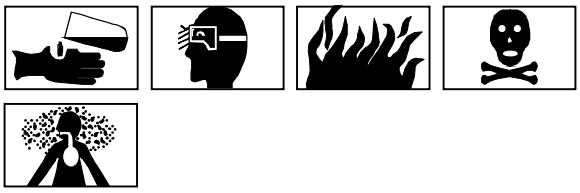


CELLULOSE-NITRATE THINNER 16



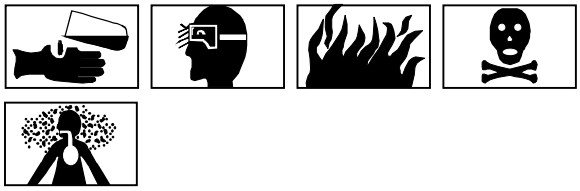
WALKWAY COMPOUND 31

9 USING THINNER, CLEAN THE ENTIRE AREA; ALLOW SUFFICIENT DRYING TIME. PAINT THE ENTIRE CABIN DOOR, INCLUDING SIDE FLOOR PANELS, RAMP, AND PASSAGEWAY FLOOR AREA, EXCEPT FOR THE HATCH LOCKING ASSEMBLY, TIEDOWN FITTING PANS AND RINGS, MARKINGS, AND SCREW HEADS. REMOVE ANY MASKING, APPLIED IAW NOTE 7, AS SOON AS POSSIBLE AFTER PAINTING.



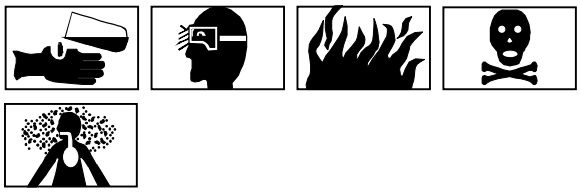
POLYURETHANE COATING, HIGH SOLIDS 32

10 EMERGENCY EXIT MARKINGS SO NOTED TO BE REFINISHED LUSTERLESS ORANGE-YELLOW (COLOR 33538) AND BACKGROUND TO BE REFINISHED LUSTERLESS BLACK (COLOR 37038).



POLYURETHANE COATING, HIGH SOLIDS 32

11 ALL AREAS OF THE COCKPIT TO BE REFINISHED DARK LUSTERLESS GRAY (COLOR 36231) EXCEPT CANOPY AND WINDSHIELD FRAMING, GLARE SHIELDS, AND HORIZONTAL SURFACES ABOVE THE TOP OF THE INSTRUMENT PANEL WHICH WILL BE FINISHED LUSTERLESS BLACK (COLOR 37038).

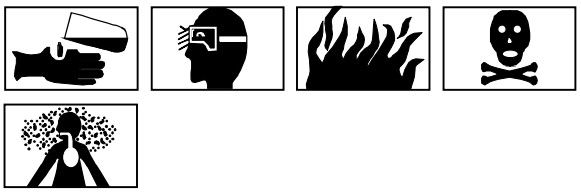


POLYURETHANE COATING, HIGH SOLIDS 32

12 TYPICAL FRAME STATION MARKINGS AT BOTH SIDES OF THE AIRCRAFT, APPROXIMATELY WL-9, ON THE AFT SIDE OF FRAMES AT FS 160, 190, 220, 254, 286, 320, 350, 382, 410, AND 434. THE LETTERS AND NUMBERS ARE 1 INCH HIGH IAW MIL-I-8464. USE GLOSSY INSIGNIA WHITE (COLOR 17875) IAW FED-STD-595.

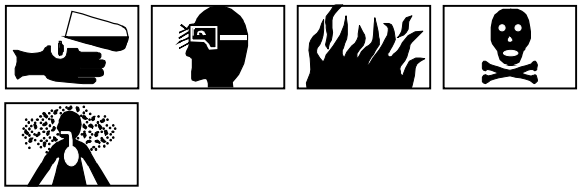
Figure 2. Internal Marking and Finishing (Sheet 11)

NOTES (CONTINUED):



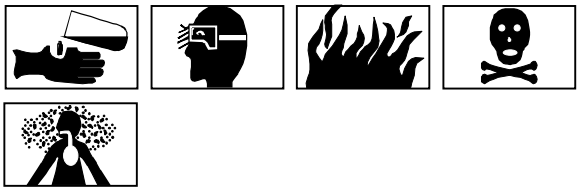
POLYURETHANE COATING, HIGH SOLIDS 32

13. A 2 X 2 INCH CROSS REFINISHED GLOSSY INSIGNIA RED (COLOR 11136) ON A 2 5/16 INCH DIAMETER BACKGROUND OF GLOSSY INSIGNIA WHITE (COLOR 17875). ON HH-46D/ UH-46D/CH-46D HELICOPTERS IS LOCATED AT FS 101, BL 34 RIGHT, WL 14. ON CH-46E HELICOPTERS, THE CROSS IS LOCATED AT FS 101, BL 37 LEFT, WL-4. ON ALL HH-46D/ UH-46D/CH-46D HELICOPTERS, A CROSS IS LOCATED ON THE LEFT SIDE OF THE CABIN AT FS 366, WL 32, OR FS 335, WL 29 FOR CH-46E HELICOPTERS. ON CH-46E HELICOPTERS, A CROSS IS BETWEEN FS 164 AND 70 OF THE RIGHT SIDE OF THE CONSOLE.
14. ARROW SHOWN IS TYPICAL OF ALL CCW DIRECTION ARROWS. CW ARROWS ARE THE SAME DIMENSIONS, BUT REVERSE OF ARROW SHOWN.
15. LOCATIONS OF ELECTRICAL AND ELECTRONIC EQUIPMENT ARE IDENTIFIED BY DECALS OR STENCILS OF 1/2 INCH CAPITAL LETTERS AND ARABIC NUMERALS. REFER TO TABLE 2 FOR APPROXIMATE LOCATIONS OF THE DECALS AND STENCILS.



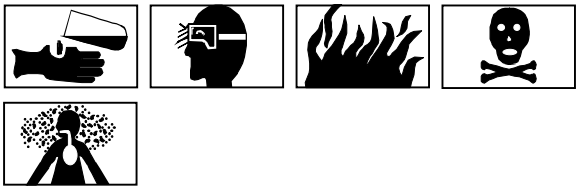
POLYURETHANE COATING, HIGH SOLIDS 32

16. EMERGENCY EXIT MARKINGS SO NOTED ARE TO BE REFINISHED GLOSSY ORANGE-YELLOW (COLOR 13538).
17. EMERGENCY FUEL SHUTOFF VALVE (INDEX 14) IS LOCATED DIRECTLY OVER THE VALVE.



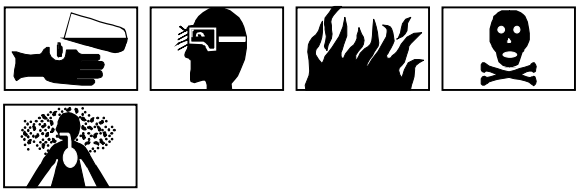
POLYURETHANE COATING, HIGH SOLIDS 32

18. STENCIL ALL MARKINGS AND LETTERS IAW MIL-I-18464, USING GLOSS INSIGNIA WHITE (COLOR 17875) IAW FED-STD-595. ALL LETTERS TO BE 1/2 INCH CAPITALS EXCEPT WHERE NOTED.
19. ALL ARROWS POINT TO STATION LINES. ARROWS AT ALL STATIONS POINT FORWARD EXCEPT THE ARROWS AT FS 410, WHICH POINT AFT. ALL LETTERING IS AFT OF STATION LINES, EXCEPT THE LETTERING FOR FS 410, WHICH IS FORWARD OF FS 410.
20. ALL LETTERS AND NUMERALS ARE 1/2 INCH HIGH. STATION LINES ARE 1/2 WIDE.



POLYURETHANE COATING, HIGH SOLIDS 32

21. ALL LETTERS, NUMERALS, STATION LINES, AND ARROWS APPLIED TO METAL SURFACES OF THE CABIN FLOOR AND LEFT SIDE OF THE CABIN ARE GLOSS WHITE (COLOR 17875) IAW FED-STD-595.

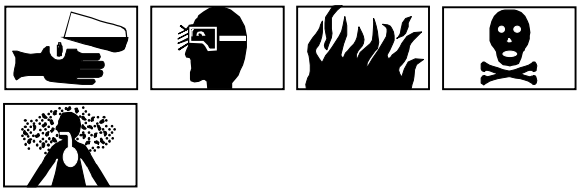


POLYURETHANE COATING, HIGH SOLIDS 32

Figure 2. Internal Marking and Finishing (Sheet 12)

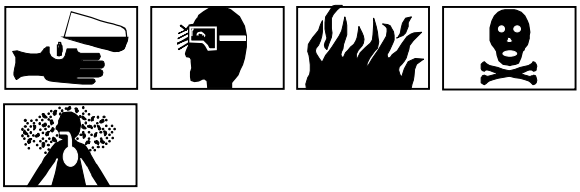
NOTES (CONTINUED):

22. ALL LETTERS, NUMERALS, STATION LINES, AND ARROWS APPLIED TO BLANKETS ON THE LEFT-HAND SIDE OF THE CABIN ARE GLOSS BLACK (COLOR 17038) IAW FED-STD-595.



POLYURETHANE COATING, HIGH SOLIDS 32

23. PAINT SIX BLACK STATION LINES ON BLANKETS AND SIX WHITE STATION LINES ON THE STRUCTURE OF THE LEFT SIDE OF THE CABIN AT FS 170, 220, 270, 320, 365, AND 410. ALL LINES MUST RUN FROM THE CABIN FLOOR (WL-24.75) TO WL 39. DO NOT PAINT LINES OVER WINDOWS, STRINGERS, AND OTHER VERTICAL STRUCTURES.



POLYURETHANE COATING, HIGH SOLIDS 32

24. PAINT ONE STATION LINE ON THE LEFT SIDE FLOOR PANEL AT FS 145 FROM BL 34 TO THE TRACK. PAINT 11 STATION LINES ON BOTH THE RIGHT AND LEFT SIDE FLOOR PANELS FROM BL 34 TO THE TRACK AT FS 170, 195, 220, 245, 270, 295, 320, 342.5, 265, 387.5, AND 410. PAINT SIX STATION LINES COMPLETELY ACROSS THE CENTER FLOOR PANEL FROM THE LEFT TRACK TO THE RIGHT TRACK AT FS 170, 220, 270, 320, 265, AND 410. DO NOT PAINT ANY PART OF THE TRACKS.

25. ON THE LEFT SIDE OF THE CABIN, APPLY INDEX NO. 68, 72, 76, 84, AND 89 ONLY ON THE BLANKET. APPLY INDEX 88 AT FS 410 ONLY ON THE STRUCTURE. APPLY INDEXES AT WL 39.

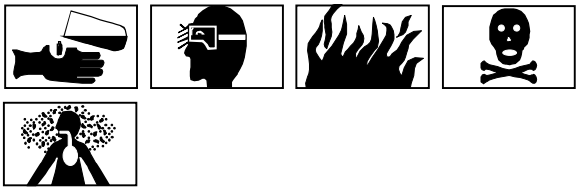
26. DETAIL K, IN INSTRUCTION PLATE (A02L2035-1) IS ON THE UNDERSIDE OF THE PASSAGEWAY ACCESS PANEL, APPROXIMATELY FS 111. WHEN NECESSARY, REPLACE THE PLATE (REFER TO A1-H46AE-110-000, WP 037 00).

27. ON HELICOPTERS 1520271 THRU 154030, INDEX 7 IS AT APPROXIMATELY WL-9. ON HELICOPTERS 154031 AND SUBSEQUENT, INDEX 7 IS AT WL-10.

28. CAUTION IS IN 1 INCH HIGH LETTERS. ALL OTHER WORDS ARE IN 1/2 HIGH LETTERS.

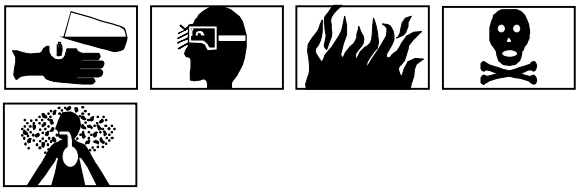
29. BELT ATTACH AT FS 455 LEFT AND RIGHT SIDE IS IN 1/2 INCH HIGH LETTERS.

30. INDEX 44 IS AT WL 6, BL 29R AND AT WL 8, BL 15L.



POLYURETHANE COATING, HIGH SOLIDS 32

31. STENCIL INDEX 63 IN GLOSS BLACK LETTERS (COLOR 17038) IAW FED-STD-595, 3/8 INCH HIGH.



POLYURETHANE COATING, HIGH SOLIDS 32

32. MARKING IS LOCATED AT FS 444.00 AND WL 1.00. USE GLOSSY WHITE (COLOR 17875).

33. EXTERNAL RESCUE HOIST OPERATION INSTRUCTIONS PLACARD (A15H4504-1) (HH-46D AND CH-46E).

34. PLACARD (A15H3504-2).

Figure 2. Internal Marking and Finishing (Sheet 13)

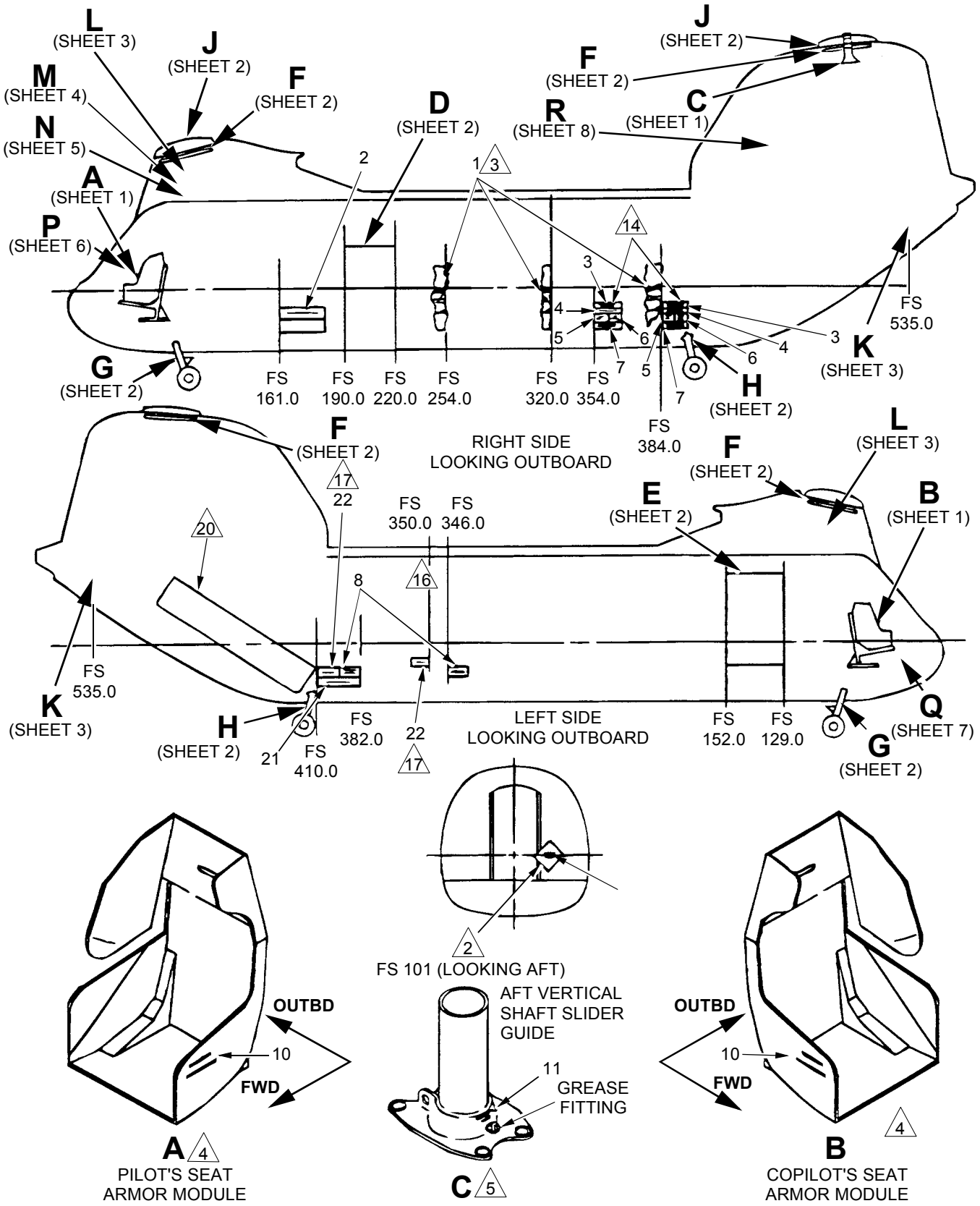


Figure 3. Component, Equipment, and Equipment Container Markings (Sheet 1 of 11)

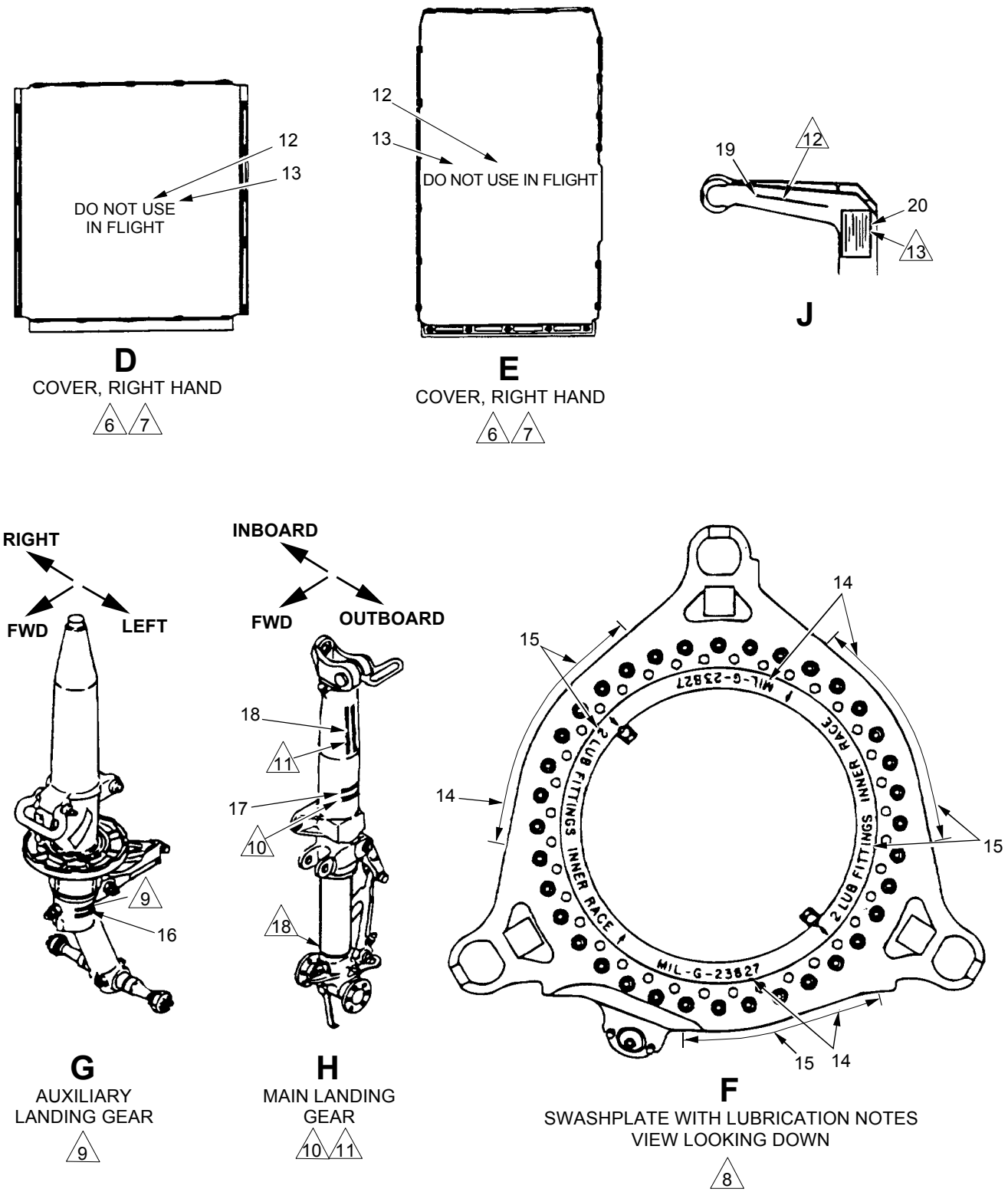
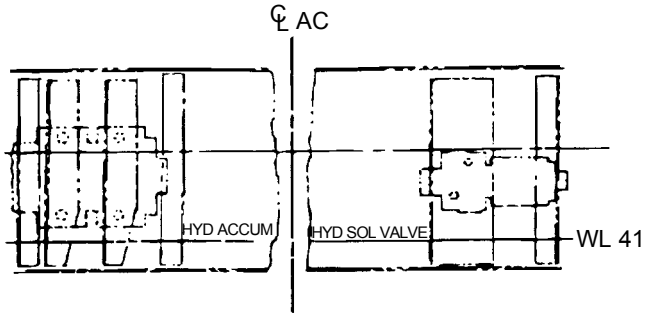
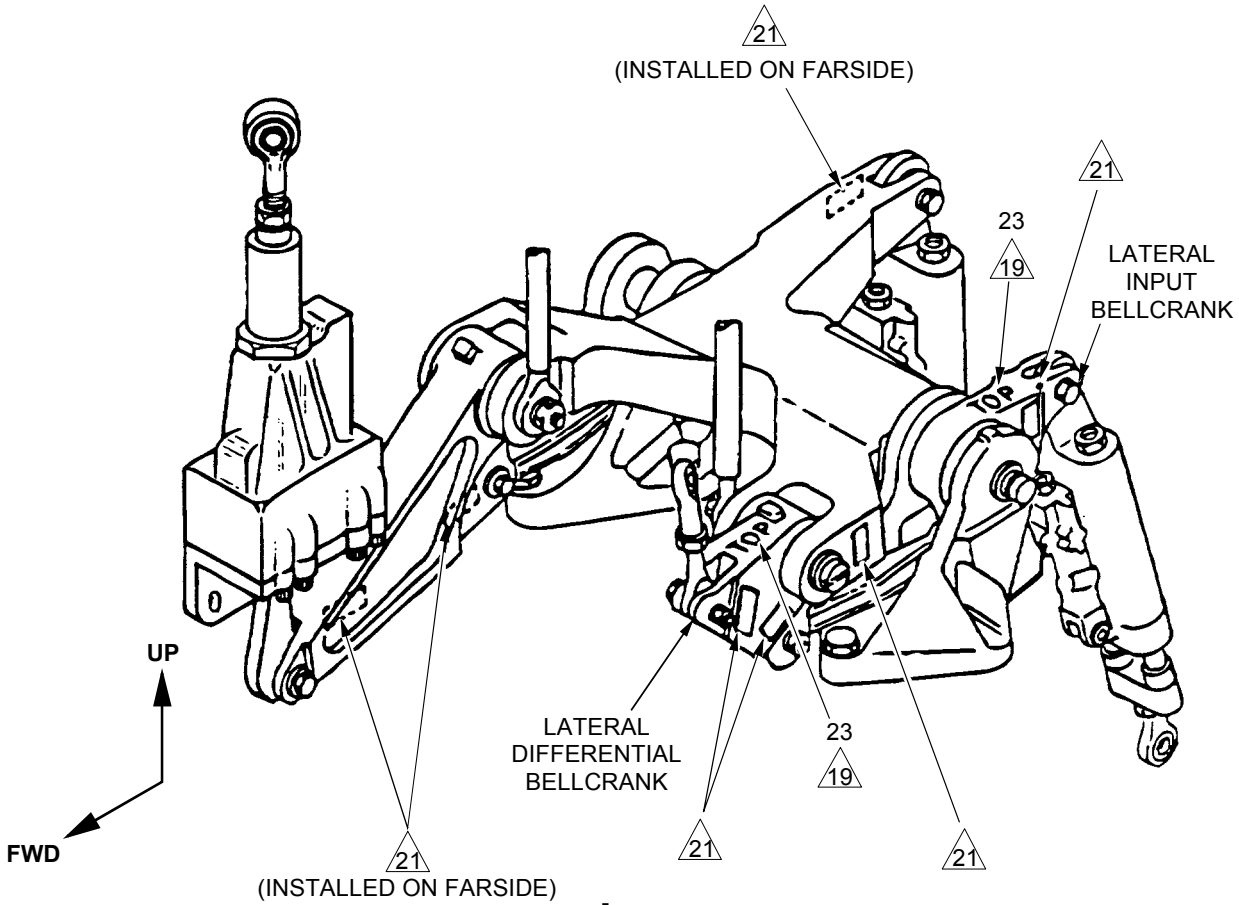


Figure 3. Component, Equipment, and Equipment Container Markings (Sheet 2)

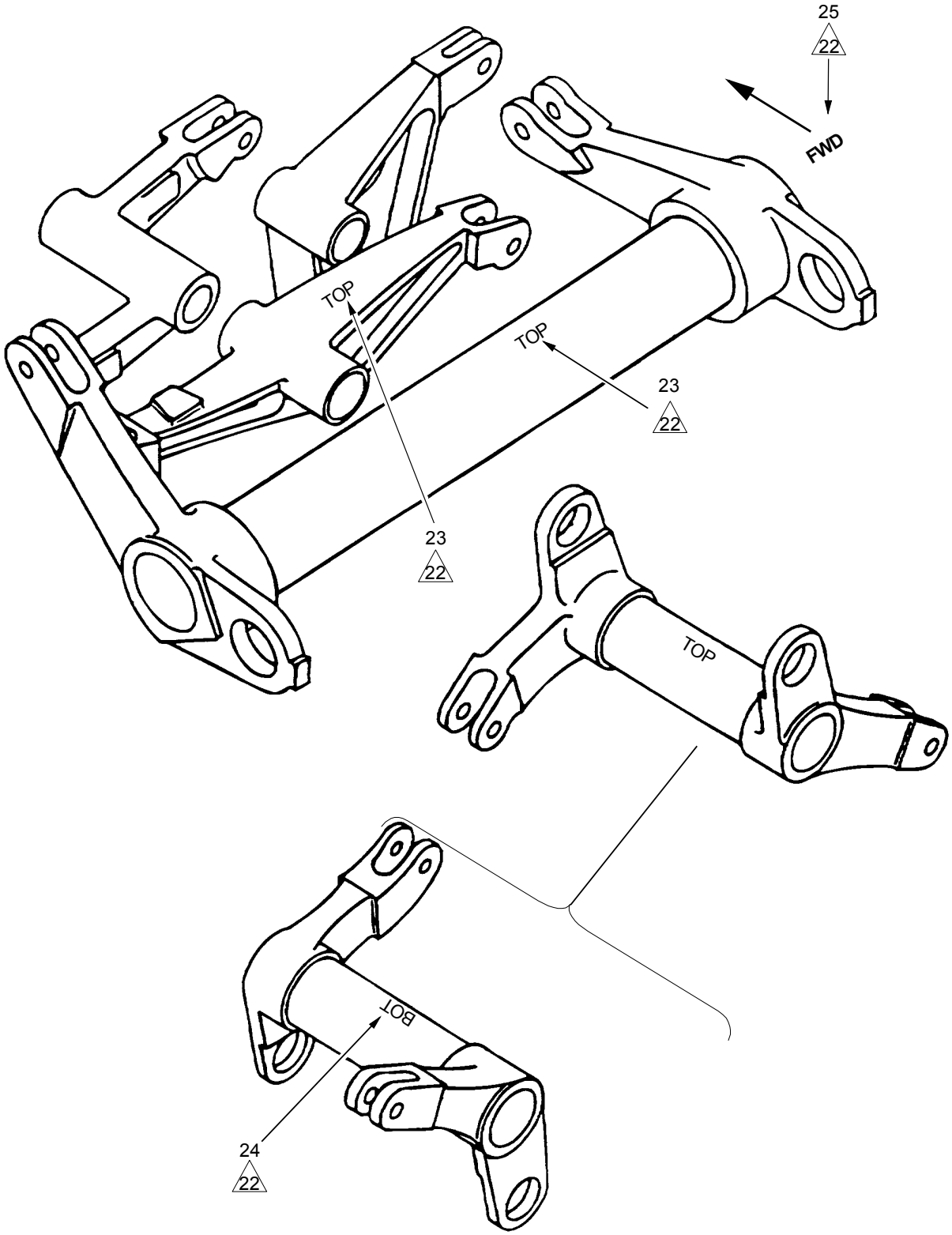


K △15
LOOKING AFT FS 535
ON CANTED BULKHEAD



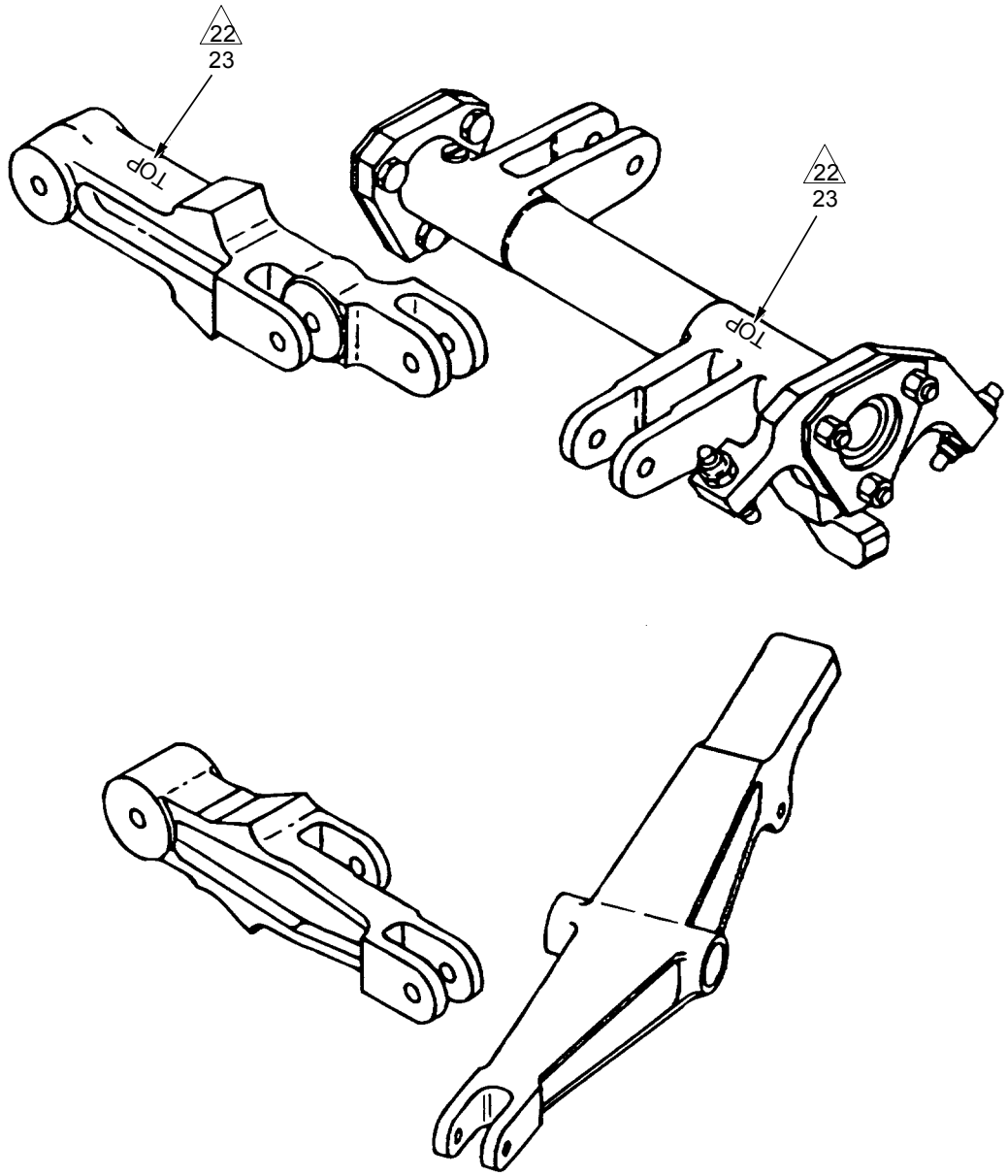
L
FORWARD UPPER
FLIGHT CONTROLS

Figure 3. Component, Equipment, and Equipment Container Markings (Sheet 3)



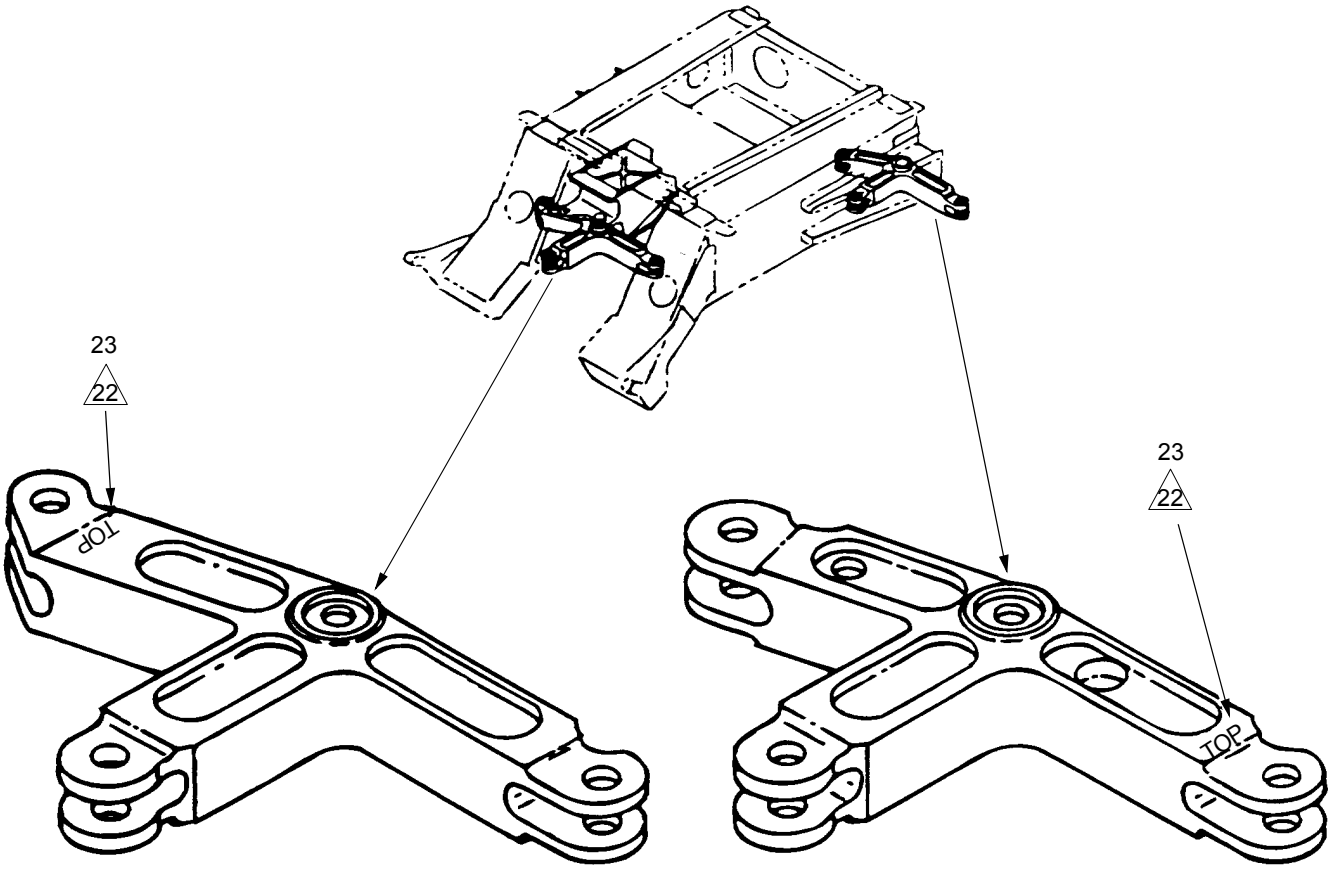
M
FORWARD UPPER
FLIGHT CONTROLS

Figure 3. Component, Equipment, and Equipment Container Markings (Sheet 4)



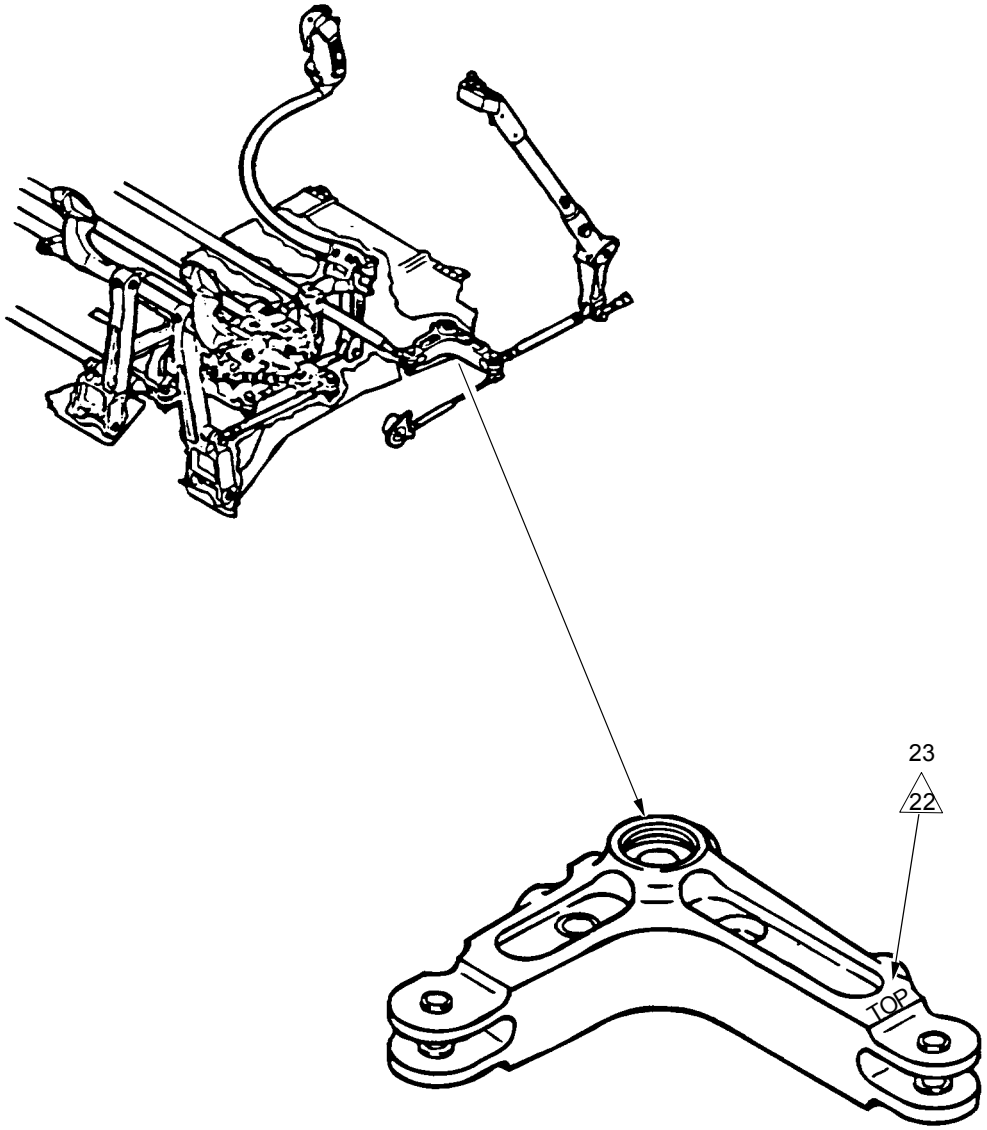
N
FORWARD LOWER
FLIGHT CONTROLS

Figure 3. Component, Equipment, and Equipment Container Markings (Sheet 5)



P
PILOT'S BOX
FLIGHT CONTROLS

Figure 3. Component, Equipment, and Equipment Container Markings (Sheet 6)



Q
COPILOT'S BOX
FLIGHT CONTROLS

Figure 3. Component, Equipment, and Equipment Container Markings (Sheet 7)

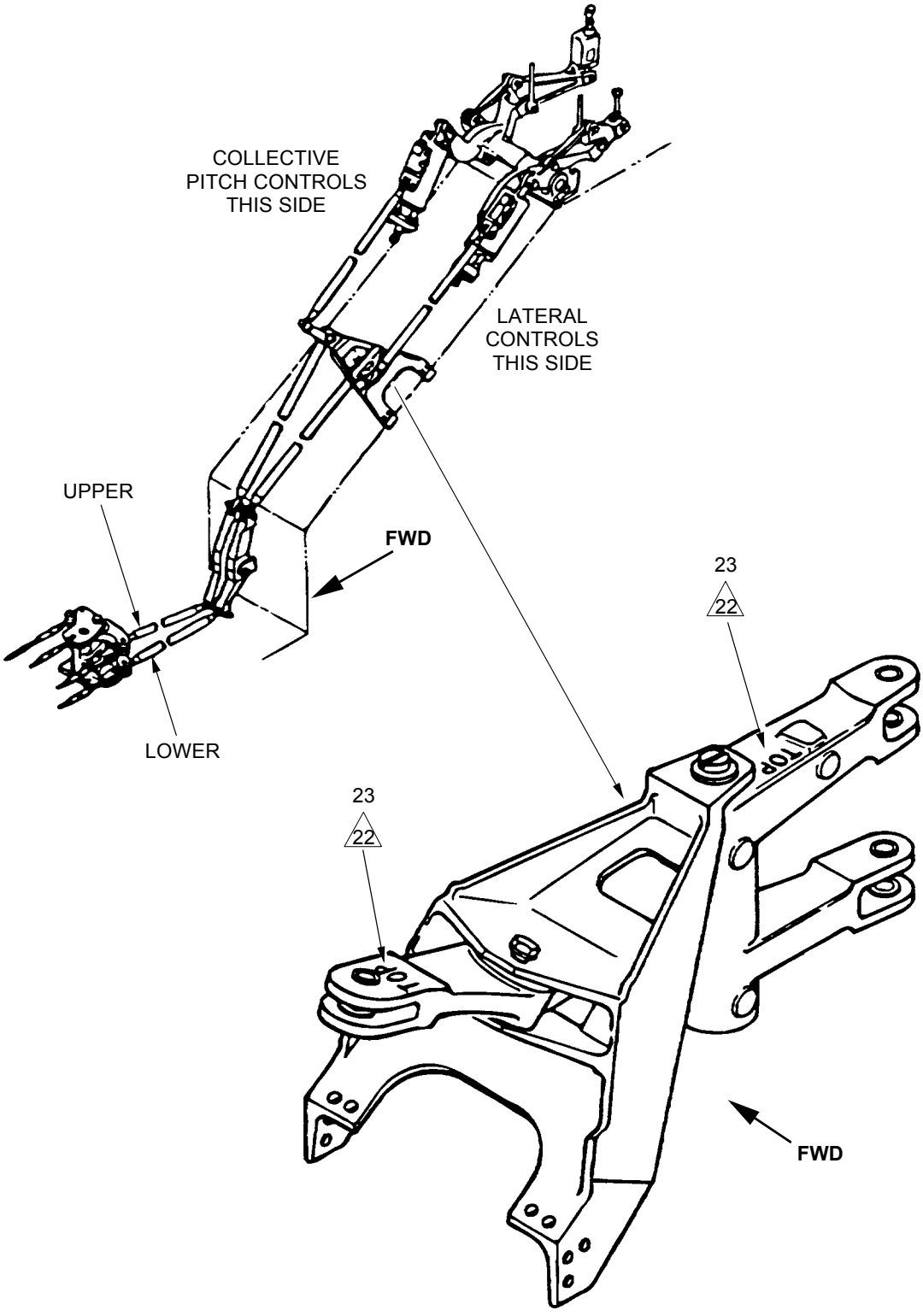


Figure 3. Component, Equipment, and Equipment Container Markings (Sheet 8)

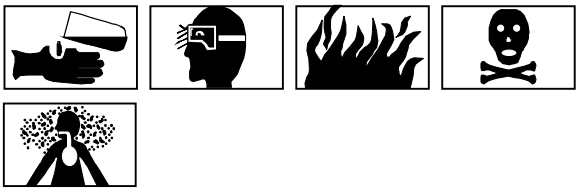
INDEXED STENCILS FOR FIGURE 3

1. BRIDLE ASSY CARGO HANDLING (PRIOR TO 157667)
2. SEA ANCHOR
3. CABLE QUICK DISCONNECT NAF 403135 CABLE GRIP
4. CARGO HOOK
5. PULLEY
6. PULLEY & CABLE CUTTER
7. RESCUE WEIGHT
   RESCUE HOOK
8. HOIST OPERATIONS
   SAFETY BELT
9. DATA CASE
10. USE CAUTION WHILE RAISING SEAT
11. CAUTION - USE MIL-G-23827 GREASE ONLY
12. REMOVE BEFORE FLIGHT
13. DO NOT USE IN FLIGHT
14. MIL-G-23827
15. 2 LUBE FITTINGS - INNER RACE
16. TO SERVICE OLEO SEE INSTRUCTIONS ON INSIDE OF COCKPIT ACCESS PANEL
17. PART NO. A02L1000-XX (A02L1100-XX) SERIAL NO. XXXX (STENCIL ONLY IF A DECAL IS NOT AVAILABLE)
18. WARNING: RELEASE AIR IN STRUT BEFORE DISASSEMBLING
19. MIL-L-21260A, TYPE I, GRADE 30 OIL (AN OLD DESIGNATION FOR THIS OIL IS MIL-L-21260, GRADE 2. THE OILS ARE INTERCHANGEABLE.) (REFER TO NOTE 13.)
20. CAUTION - DO NOT ATTEMPT TO ADJUST BLADE FOLD LINKAGE WITHOUT REFERRING TO A1-H46AE-150-000
21. SURVIVOR SLING
22. CREWMAN'S SLING
23. TOP
24. BOT
25. AFT

WARNING

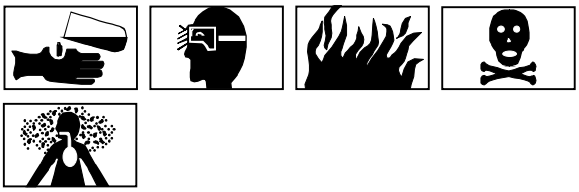
CONSULT HMWS PAGES FOR APPROPRIATE PRECAUTIONS AND SAFETY REQUIREMENTS FOR MATERIALS USED FOR COMPONENT, EQUIPMENT, AND EQUIPMENT CONTAINER MARKINGS.

NOTES:



POLYURETHANE COATING, HIGH SOLIDS 32

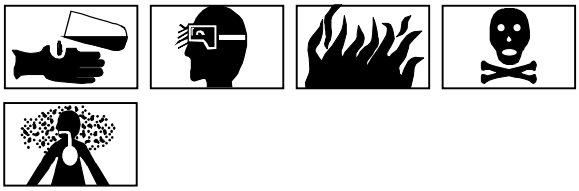
1. ALL STENCILING EXCEPT DATA CASE IS 1/2 INCH HIGH LETTERS AND ARABIC NUMERALS. EXCEPT FOR HYD ACCUM AND HYD SOL. VALVE, THE COLOR IS BLACK (COLOR 17038).



POLYURETHANE COATING, HIGH SOLIDS 32

△2 STENCIL DATA CASE WITH 1 INCH HIGH LETTERS IAW MIL-I-8474. COLOR IS GLOSSY INSIGNIA WHITE (COLOR 17875) IAW FED-STD-595.

△3 BRIDLE ASSEMBLY CARGO HANDLING, INDEX NO. 1, IS STENCILED ON BOTH SIDES OF CONTAINER. ON 150268 THRU 150936 AND 150939 THRU 1509494, INDEX NO. 1 IS AT FS 382. ON 150937, 150938, AND 150950 THRU 152543, IT IS AT FS 254. ON HELICOPTERS 152544 THRU 157666, IT IS AT FS 320. ON 157667 AND SUBSEQUENT, THE BRIDLE ASSEMBLY IS NOT INSTALLED, BUT THE PROVISIONS REMAIN AT FS 320.

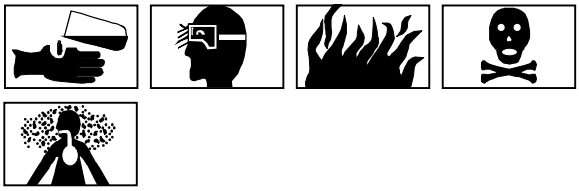


POLYURETHANE COATING, HIGH SOLIDS 32

△4 STENCIL IAW MIL-I-18464, LUSTERLESS ORANGE-YELLOW (COLOR 33538) IAW FED-STD-595 AND MIL-L-7178.

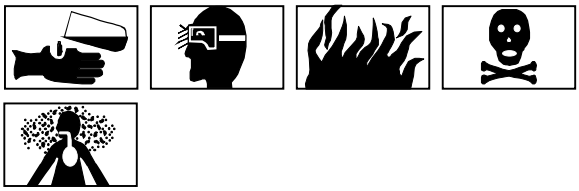
Figure 3. Component, Equipment, and Equipment Container Markings (Sheet 9)

NOTES (CONTINUED):



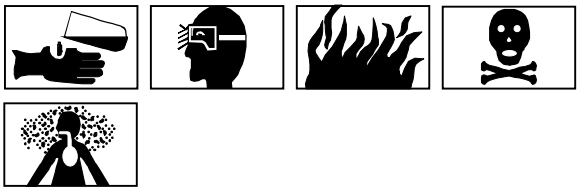
POLYURETHANE COATING, HIGH SOLIDS 32

5. STENCIL 1/4 INCH HIGH LETTERS GLOSS BLACK (COLOR 17038) IAW FED-STD-595.



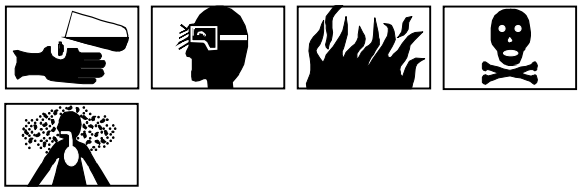
POLYURETHANE COATING, HIGH SOLIDS 32

6. PRIOR TO 152544, STENCIL INDEX 12 ON BOTH SIDES OF COVER IN 1 1/2 INCH LETTERS WITH RED ENAMEL (COLOR 21136) IAW FED-STD-595 AND MIL-L-5556.



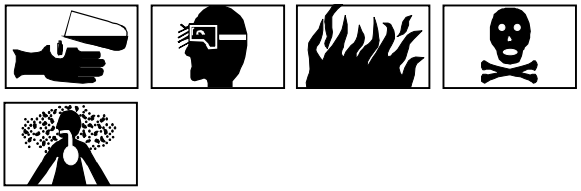
POLYURETHANE COATING, HIGH SOLIDS 32

7. ON 152544 AND SUBSEQUENT, STENCIL INDEX 13 ON BOTH SIDES OF COVER IN 1/2 INCH LETTERS WITH WHITE ENAMEL (COLOR 27875) AND FED-STD-595 AND MIL-E-5556.



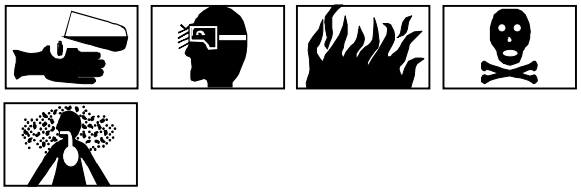
POLYURETHANE COATING, HIGH SOLIDS 32

8. STENCIL 1/2 INCH HIGH BLACK LETTERS AND NUMBERS (COLOR 17038) IAW FED-STD-595. INDEXES 14 AND 15 ARE LOCATED IN TWO PLACES ON TOP OF THE SWASHPLATE AND IN THREE PLACES ON THE OUTER EDGE OF THE SWASHPLATE.



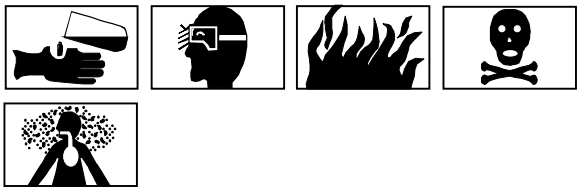
POLYURETHANE COATING, HIGH SOLIDS 32

9. STENCIL 1/4 INCH WHITE LETTERS (COLOR 17875) IAW FED-STD-595.



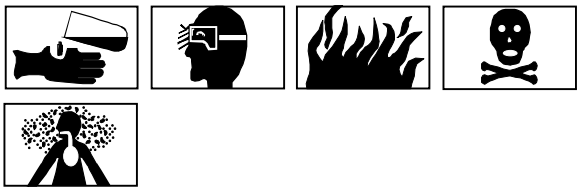
POLYURETHANE COATING, HIGH SOLIDS 32

10. INSTALL DECAL (BACM10M1BTP (PREFERRED), BACM10M1BRR, OR SCOTCHCAL 3650 DECAL). IF NOT AVAILABLE, STENCIL 1/4 INCH BLACK LETTERS AND NUMBERS (COLOR 17038) IAW FED-STD-595.



POLYURETHANE COATING, HIGH SOLIDS 32

11. STENCIL 1/2 INCH RED LETTERS (COLOR 11105) IAW FED-STD-595.



POLYURETHANE COATING, HIGH SOLIDS 32

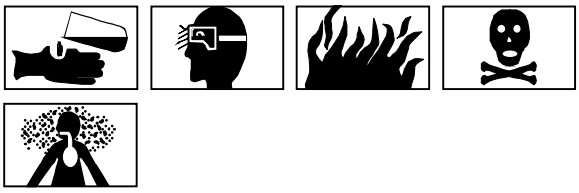
12. DECAL (BACM9M4BZ, WITH OIL DESIGNATION MIL-L-21260, GRADE 2) CAN BE USED. IF NOT AVAILABLE, STENCIL 1/2 INCH HIGH ORANGE-YELLOW LETTERS AND NUMBERS (COLOR 13538) IAW FED-STD-595.

Figure 3. Component, Equipment, and Equipment Container Markings (Sheet 10)

NOTES (CONTINUED):

13. REPLACE ITEM 20 WITH DECAL (BACM9C5AJ).

14. ON HH-46D AND 162554 THRU 154844 HELICOPTERS, INDEX NO. 3, 4, 5, 6, AND 7 ARE BETWEEN FS 384 AND 398. ON 154845 AND SUBSEQUENT HELICOPTERS, INDEX NO. 3, 4, 5, 6, AND 7 ARE BETWEEN FS 352 AND 366.

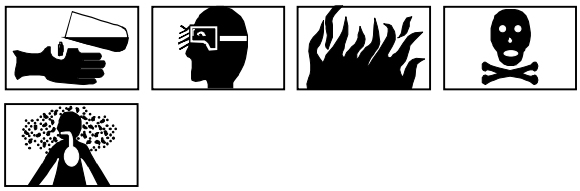


POLYURETHANE COATING, HIGH SOLIDS 32

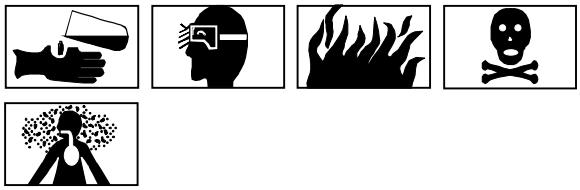
15. HYD ACCUM AND HYD SOL VALVE ARE STENCILED IN 1/2 INCH HIGH GLOSS INSIGNIA WHITE LETTERS (COLOR 17875) IAW FED-STD-595.

16. ON H-46E AND 152554 THRU 154844 HELICOPTERS, HOIST OPERATION'S SAFETY BELT, INDEX NO. 8, IS BETWEEN FS 382 AND 394. ON 154845 AND SUBSEQUENT HELICOPTERS, IT IS BETWEEN FS 334 AND 346.

17. ON 1520268 THRU 150936, AND 150939 THRU 150949, CREWMAN'S SLING, INDEX NO. 22 IS BETWEEN FS 394 AND 410. ON 150937, 150938, AND 150950 AND SUBSEQUENT, IT IS BETWEEN FS 350 AND 366.

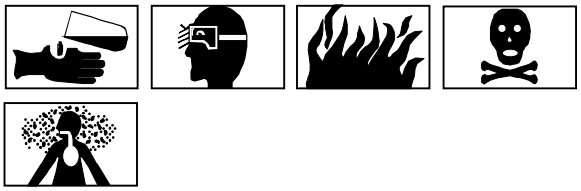


EPOXY PRIMER 33



POLYURETHANE COATING, HIGH SOLIDS 32

18. ON HELICOPTERS WITH STRUTS (A02L1100), PAINT A BLACK STRIPE AROUND THE BOTTOM OF THE STRUT BETWEEN A POINT 13/64 INCH ABOVE THE LOWER SCISSOR LUG AND A POINT EVEN WITH THE BOTTOM OF THE LOWER BEARING WITH THE STRUT FULLY COMPRESSED. IN ACCORDANCE WITH MIL-STD-7179, USE ONE COAT OF EPOXY PRIMER (MIL-PRF-85582) AND TWO COATS OF GLOSS BLACK (COLOR 17038) IAW FED-STD-595.

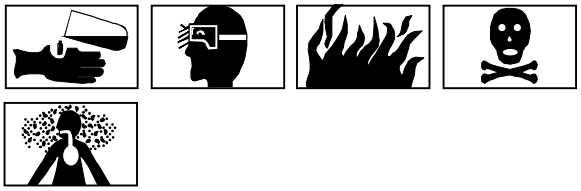


POLYURETHANE COATING, HIGH SOLIDS 32

19. STENCIL TOP, INDEX 23, IN 1/2 INCH HIGH BLACK LETTERS (COLOR 37038) IAW FED-STD-595.

20. REFER TO FIGURE 6.

21. INSTALL DECAL (BACM9L10AVC).



POLYURETHANE COATING, HIGH SOLIDS 32

22. STENCIL TOP, INDEX 24, OR AFT, INDEX 25, IN 1/4 INCH HIGH BLACK LETTERS (COLOR 37038) IAW FED-STD-595.

Figure 3. Component, Equipment, and Equipment Container Markings (Sheet 11)

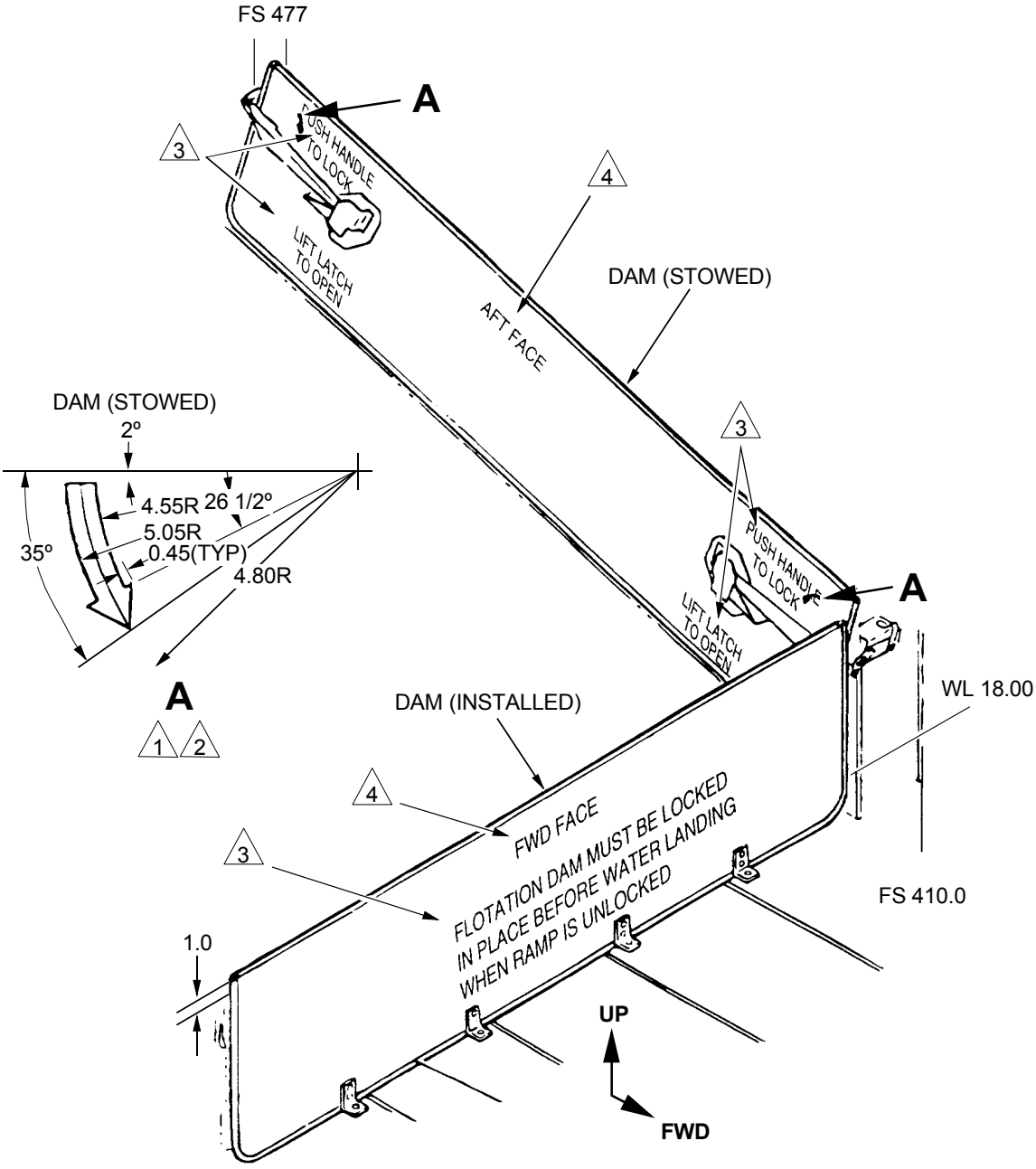
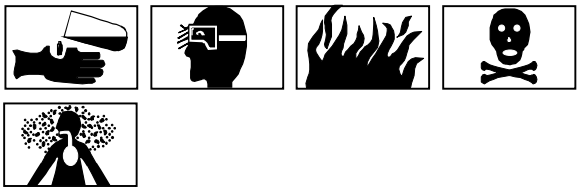


Figure 4. Equipment Markings for Watertight Dam and Powered Down Ramp (Sheet 1 of 2)

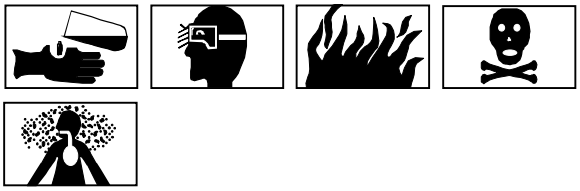
NOTES:

1. ARROW SHOWN IS COUNTERCLOCKWISE DIRECTION ARROW. CLOCKWISE ARROW IS THE SAME DIMENSION, BUT REVERSE OF ARROW SHOWN.



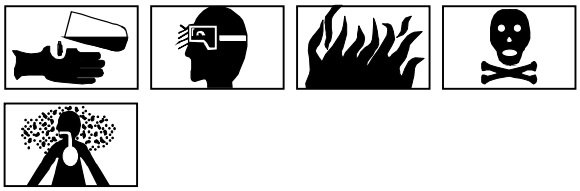
POLYURETHANE COATING, HIGH SOLIDS 32

2. STENCIL USING GLOSS YELLOW (COLOR 13538) IAW FED-STD-595.



POLYURETHANE COATING, HIGH SOLIDS 32

3. ALL STENCILING IS A 1/2 INCH HIGH LETTER WITH 1/2 INCH SPACE BETWEEN LINES. USE GLOSS YELLOW (COLOR 13538) IAW FED-STD-595.



POLYURETHANE COATING, HIGH SOLIDS 32

4. STENCIL 1 INCH HIGH LETTERS. USE GLOSS WHITE (COLOR 17875) IAW FED-STD-595.

Figure 4. Equipment Markings for Watertight Dam and Powered Down Ramp (Sheet 2)

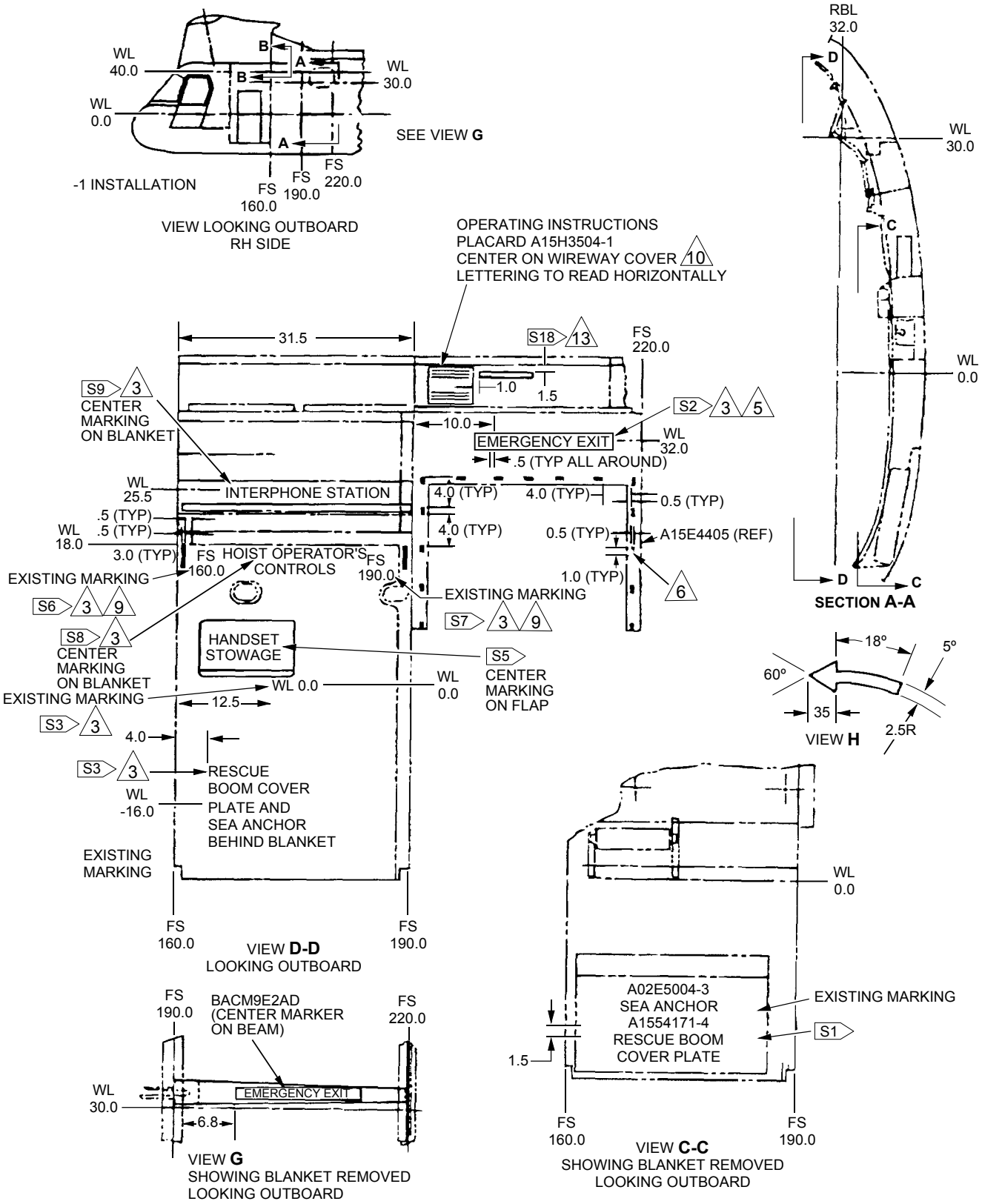


Figure 5. Equipment Markings for External Rescue System (Sheet 1 of 4)

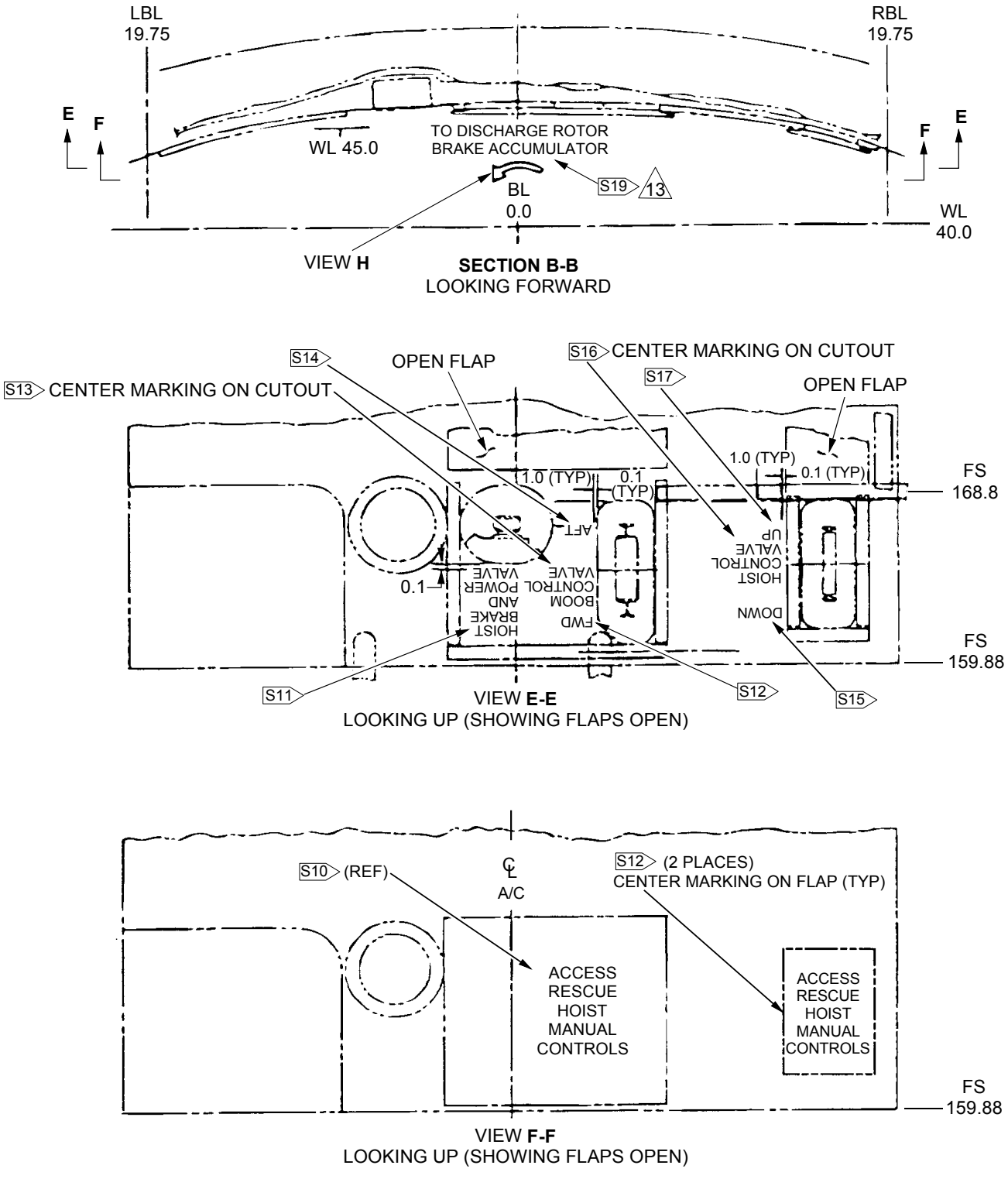


Figure 5. Equipment Markings for External Rescue System (Sheet 2)

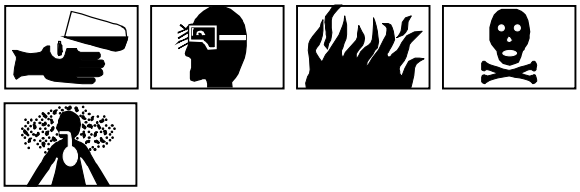
STENCIL NO.	NO. PLACES USED	DESCRIPTIONS
S1	1	A15S4171-4 RESCUE BOOM COVER PLATE
S2	1	EMERGENCY EXIT
S3	1	RESCUE BOOM COVER PLATE AND SEA ANCHOR BEHIND BLANKET
S4	1	WL 0.0
S5	1	HAND SET STOWAGE
S6	1	FS 160.0
S7	1	FS 190.0
S8	1	HOIST OPERATORS CONTROLS
S9	1	INTERPHONE STATION
S10	2	ACCESS RESCUE HOIST MANUAL CONTROLS
S11	1	HOIST-BRAKE AND POWER VALVE
S12	1	FWD
S13	1	BOOM CONTROL VALVE
S14	1	AFT
S15	1	DOWN
S16	1	HOIST CONTROL VALVE
S17	1	UP
S18	1	REMOVE QUICK RELEASE PIN PRIOR TO OPERATING BOOM
S19	1	TO DISCHARGE ROTOR BRAKE ACCUMULATOR

WARNING

CONSULT HMWS PAGES FOR APPROPRIATE PRECAUTIONS AND SAFETY REQUIREMENTS FOR MATERIALS USED FOR EQUIPMENT MARKINGS FOR EXTERNAL RESCUE SYSTEM.

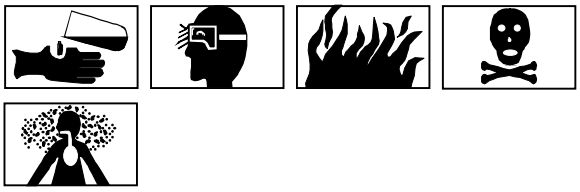
NOTES:

1. ALL DIMENSIONS ARE IN INCHES.



POLYURETHANE COATING, HIGH SOLIDS 32

2. ALL STENCIL LETTERS AND CHARACTERS TO BE 0.5 INCH IAW MIL-I-18464, COLOR TO BE GLOSS BLACK (COLOR 17038) IAW FED-STD-595 UNLESS OTHERWISE NOTED.

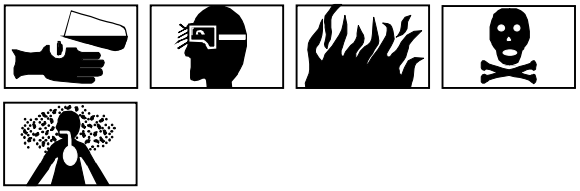


POLYURETHANE COATING, HIGH SOLIDS 32

3 STENCIL LETTERS TO BE 1.0 INCH HIGH IAW MIL-I-18464, COLOR TO BE GLOSS BLACK (COLOR 17038) IAW FED-STD-595.

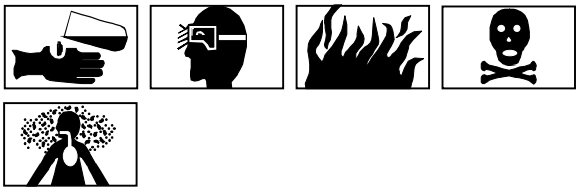
Figure 5. Equipment Markings for External Rescue System (Sheet 3)

NOTES (CONTINUED):



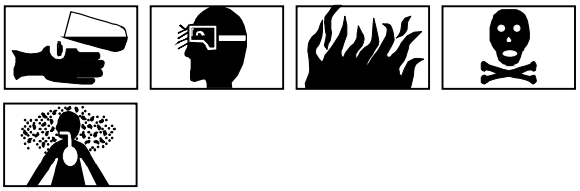
POLYURETHANE COATING, HIGH SOLIDS 32

4. POLYURETHANE COATING IAW MIL-I-7178.



POLYURETHANE COATING, HIGH SOLIDS 32

△5 EMERGENCY MARKINGS TO BE COLOR 33538 ON COLOR 37038 BACKGROUND



POLYURETHANE COATING, HIGH SOLIDS 32

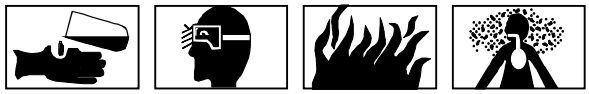
△6 A PAINTED ORANGE-YELLOW, BROKEN BAND SHALL MARK THE COMPLETE PERIPHERY OF THE EMERGENCY EXIT (COLOR 13538) IAW FED-STD-595.

7.

COLOR	FED-STD-595
GLOSS BLACK	17038
GLOSS ORANGE-YELLOW	13538
LUSTERLESS BLACK	37038
LUSTERLESS ORANGE-YELLOW	33538
GLOSS WHITE	17875

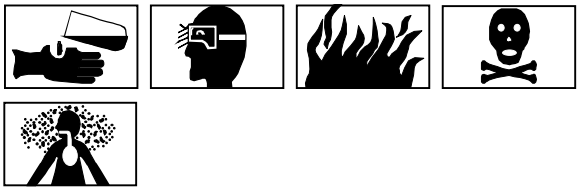
8. LOCATE MARKINGS APPROXIMATELY AS SHOWN ±1.0.

△9 LOCATE STATION MARKINGS ON OR IMMEDIATELY ADJACENT TO STATION.



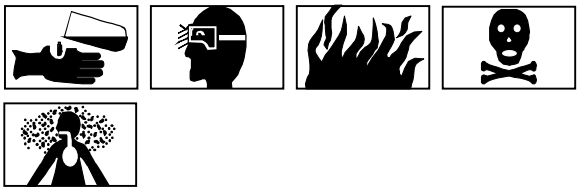
ADHESIVE 34

△10 BOND PLACARD WITH ADHESIVE.



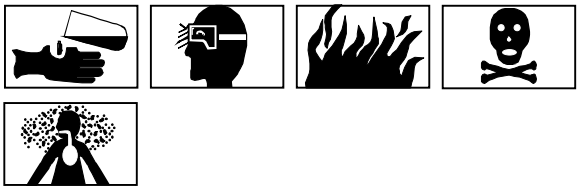
POLYURETHANE COATING, HIGH SOLIDS 32

11. OBLITERATE EXISTING MARKER ON SKIN BY PAINTING OVER WITH COLOR SIMILAR TO BACKGROUND.



POLYURETHANE COATING, HIGH SOLIDS 32

12. STATION LOCATION LINES TO BE COLOR 17038 IAW FED-STD-595.



POLYURETHANE COATING, HIGH SOLIDS 32

△13 CENTER STENCIL ON BULKHEAD FS 120.0 LETTERS TO BE 0.25 INCH HIGH IAW MIL-I-18464 (COLOR 17875) IAW FED-STD-595.

Figure 5. Equipment Markings for External Rescue System (Sheet 4)

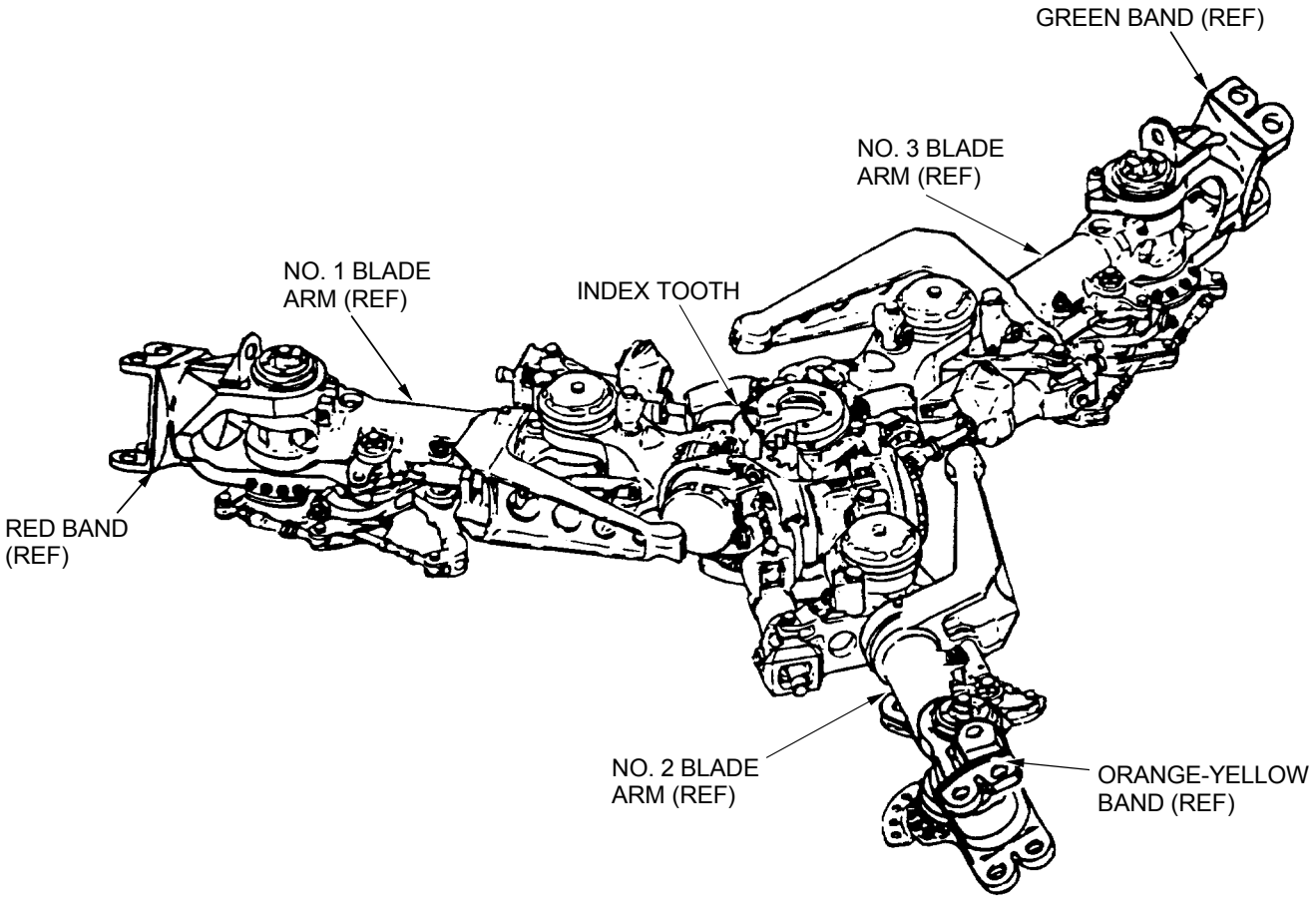


Figure 6. Rotary-Wing Head Color Band Locations

Table 1. Approximate Locations of 1/4 Inch High Stencils

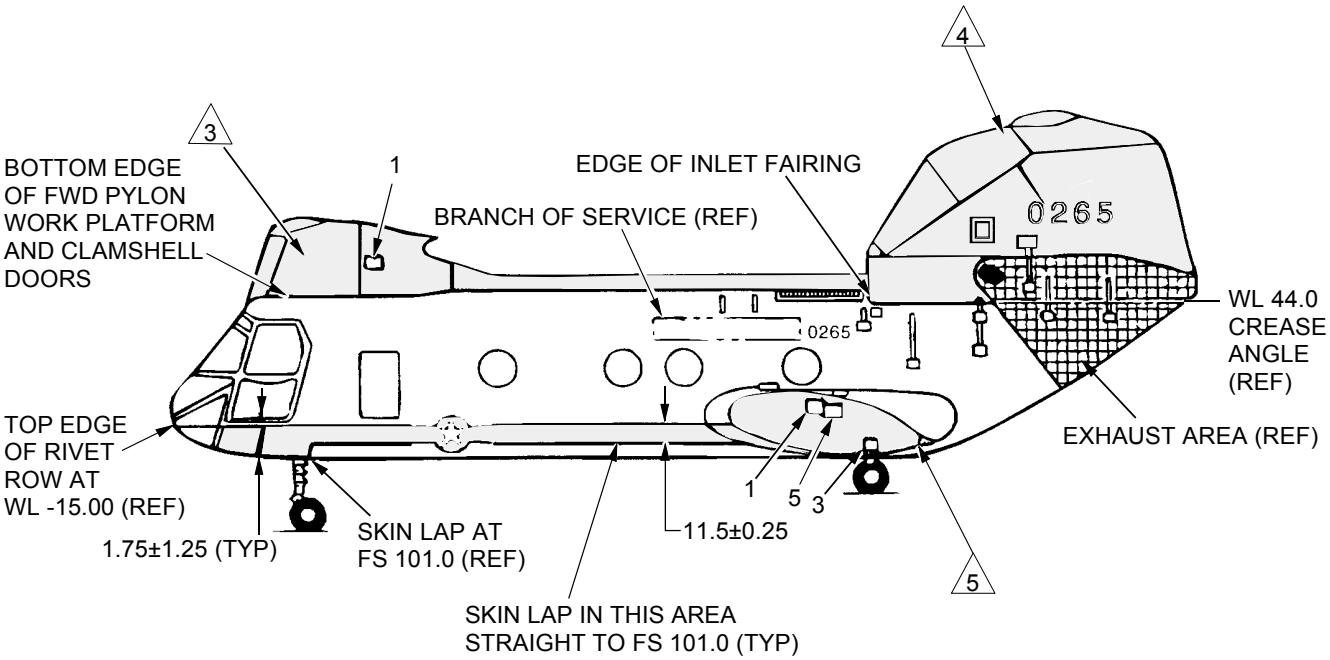
MARKING	STATION	WATERLINE	BUTTLINE
SENSOR OUTSIDE AIR TEMP. (UH-46D only)	79	68	7L
SENSORS OUTSIDE AIR TEMP. (CH-46E only)	79	68	7L
RES BOX COPILOT WSHLD WIPER	38	0	9L
RES BOX PILOT WSHLD WIPER	38	0	9R
BEEP TRIM ACT ENG. 2 ENG. 1 (UH-46D only)	40	9	0
BEEP TRIM ACT ENG. 2 ENG. 1 (CH-46E only)	54	-9	0
CONTROL UNIT TORQUE METER	52	-4	2R
AN/AIC-14 INTERCONNECTING BOX (2 markings)	101	34	32R 28L
HEADSET JACK STOWAGE (2 markings)	101	38	26R 29L
UT. RECEPTACLES DC AC 28V 115/200V (3 markings)	228 271 360	-18 -18 -18	44L 44L 44L
GRD HERE GRD HERE (3 markings)	228 271 360	-18 -18 -18	44L 44L 44L
X-BAND BEACON ANTENNA (AN/APN-154)	165	-33	0
AN/ARN-59 (ADF) LOOP ANTENNA	172	-33	27L
AN/ARC-51A/AN/ARC-52 (UHF) ANTENNA	173	-33	16R
AN/ARN-59 (SENSE) ANTENNA	195	-33	22R
AN/ARC-182 (FM) ANTENNA	240	-34	15R
AN/ARN-118 (TACAN) ANTENNA	366	-35	2L or 5R
SUPV. PNL. NO. 1	390	9	44L
SUPV. PNL. NO. 2	390	9	44R

Table 1. Approximate Locations of 1/4 Inch High Stencils (Continued)

MARKING	STATION	WATERLINE	BUTTLINE
TRANS UNIT	468	26	44L
SUPV. PNL. APU	470	42	44L
VOLT. REG. APU	465	7	44L
FIRE DET (8 markings outside engine compartment)	410 410 477 477	66 53 64 48	8L 8R 18L 18L 4L 4R 22L 22R
CAUTION FOR XMTR REMOVAL BACK SHAFT SCREW OUT THREE TURNS REMOVE CONTROL ARM WITH CLECO TOOL	420 420	-9 (Serial 150268 thru 154030) 7 (Serial 154031 and subq)	44L 44L
AMPL.-FIRE DET NO. 2 NO. 1 (UH-46D helicopters)	434	10	37L
A704 ENGINE NO. 1 FIRE CONTROL AMPL (CH-46E only)	434	15	37L
A705 ENGINE NO. 2 FIRE CONTROL AMPL (CH-46E only)	434	2	37L
CUR. XFMR GEN 2	503	33	30R
CUR. XFMR GEN 1 (underside of deck)	516	63	11L
AMP.-FIRE DET. APU (HH-46D/UH-46D helicopters)	546	44	6L
AMPL-FIRE DET. APU (CH-46E only)	546	44	6L
FIRE DET (2 markings inside APU compartment)	556 530	44 68	4R 3R
LATCH UNLOCK	415	-40	40R
LATCH LOCK	415	-40	41R

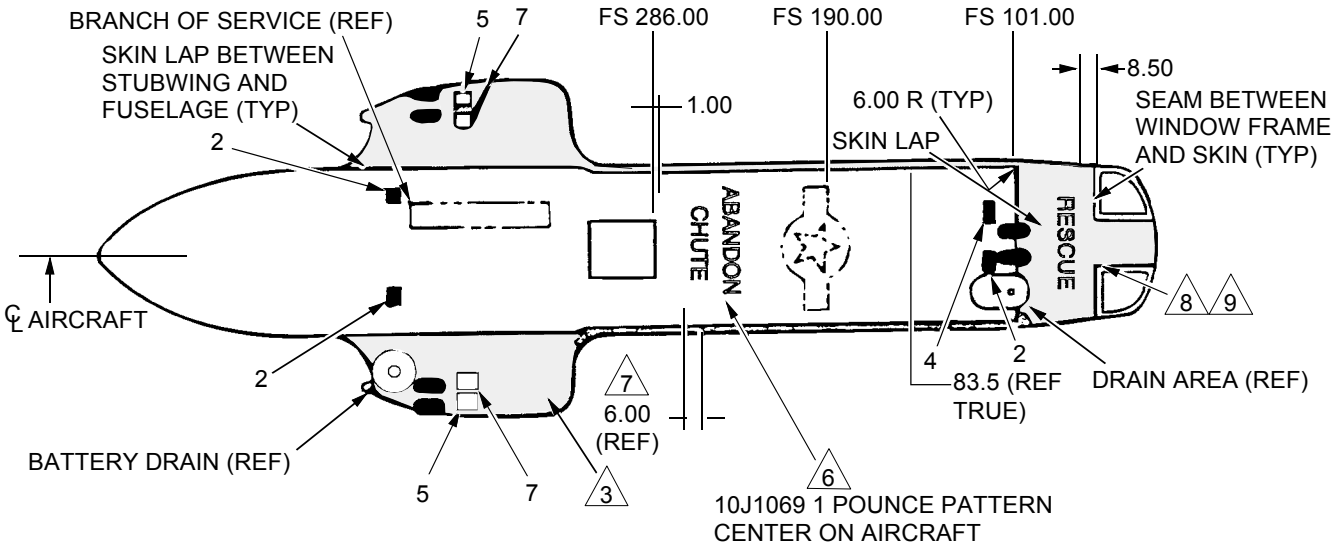
Table 2. Approximate Locations of 1/2 Inch High Stencils

MARKING	STATION	WATERLINE	BUTTLINE
BELT ATTACH (155311 and subq)	454	42	27L,R
ENG. NO. 2 EMER. THROT. CONT. BOX	390	-11	44R
ENG. NO. 1 EMER. THROT. CONT. BOX	390	-11	44L
DO NOT DISASSEMBLE THE THOMAS COUPLINGS-REBALANCE NECESSARY (Stenciled on each engine drive shaft)	474	55	14L, R
DISPL. GYRO (CH-46E only)	154	-33	13L
RATE GYRO (CH-46E only)	158	-33	5L
DOPPLER ANTENNA (HH-46D)	129	-33	0
COMPASS TRANSMITTER	34	-13.75	17L
A02E3214	49	-4.5	7R
A15E2005-4 (CH-46E)	39	-23	4.5R
PILOTS TURN RATE GYRO (CH-46E)	50	-23	1.5L
COPILOTS TURN RATE GYRO (CH-46E)	50	-23	3.75L
ATT GYRO MD-1 (CH-46E)	43	-23	1.25L
PILOT ATT IND AMPL (CH-46E)	49	-15	5R
COPILOT ATT IND AMPL	49	-15	1L
PILOT COPILOT TORQUE TONE VOLUME (CH-46E)	44	-3	0
TONE GEN (CH-46E)	43	-4.5	7L
TORQUEMETER RELAY ASSY (CH-46E)	43	-4.5	0
A24G DISPL GYRO (CH-46E)	40	-4.5	1R
A24G CONT AMPLY (CH-46E)	35	-4.5	4L
A15E2003-3 (CH-46E)	34	-4.5	3L
AM-6015/A SYNCHRO AMPL (CH-46E)	47	-15	4R

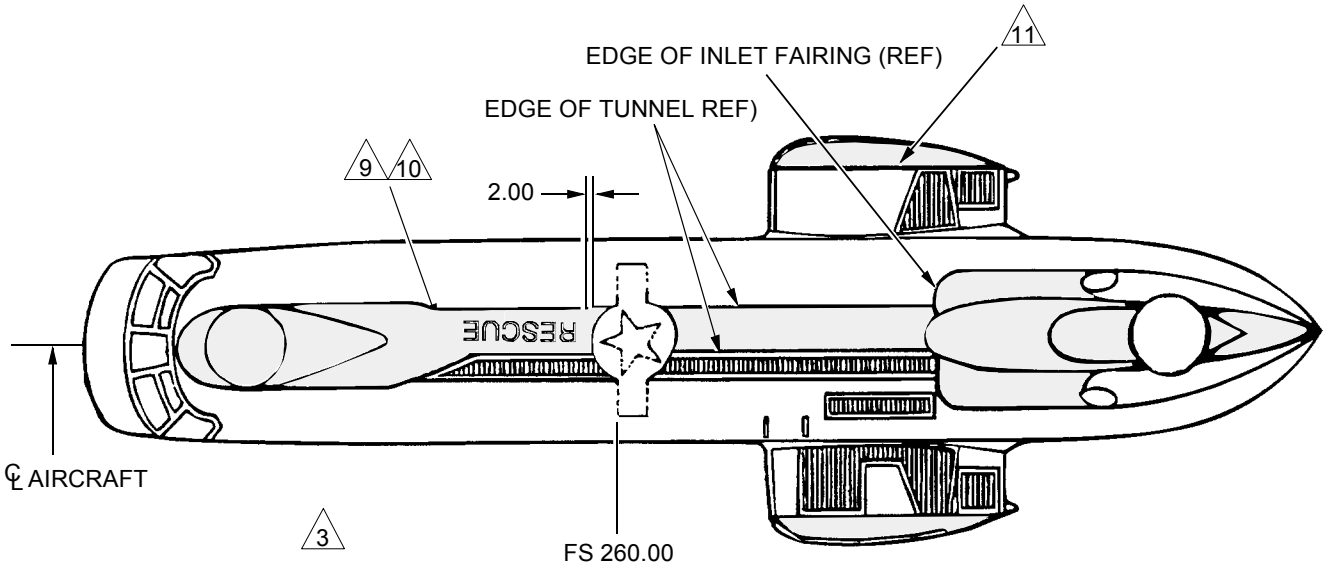


LEFT HAND SIDE VIEW
(TYPICAL FOR RIGHT SIDE)

Figure 7. External Marking and Finishing, HH-46D (Sheet 1 of 4)

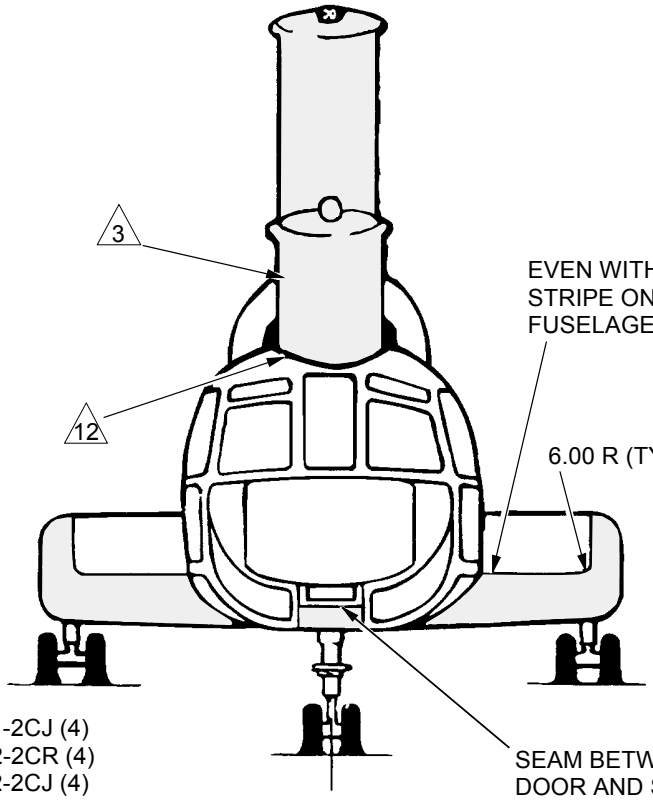


BOTTOM VIEW



TOP VIEW

Figure 7. External Marking and Finishing, HH-46D (Sheet 2)



1 DECAL 1C2079-1-2CJ (4)
2 DECAL 1C2079-2-2CR (4)
3 DECAL 1C2079-2-2CJ (4)
4 DECAL 1C2079-3-2CR
5 DECAL 1C2079-3-2CJ (4)
6 DECAL 1C2079-41-2CR
7 DECAL 1C2079-41-2CJ (2)

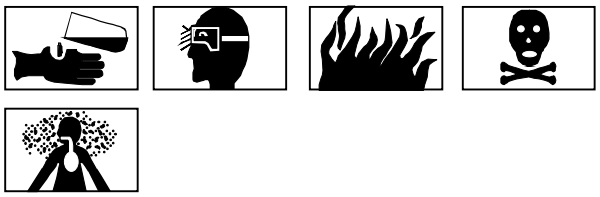
Figure 7. External Marking and Finishing, HH-46D (Sheet 3)

WARNING

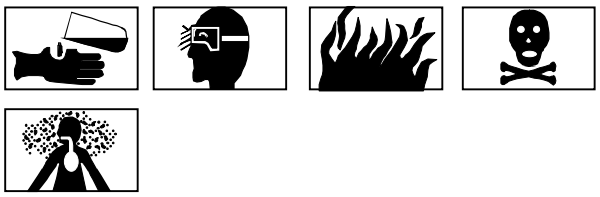
CONSULT HMWS PAGES FOR APPROPRIATE PRECAUTIONS AND SAFETY REQUIREMENTS FOR MATERIALS USED FOR EXTERNAL MARKING AND FINISHING.

NOTES:

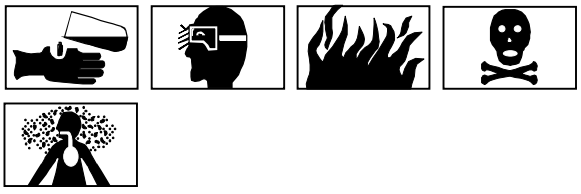
1. DECALS, MARKING, AND FINISHING SHOWN ARE PECULIAR TO HH-46D. DECALS SHOWN ARE REPLACEMENTS FOR THOSE IN THE LOCATION SHOWN IN FIG. 1. REFER TO FIG. 1 FOR ALL OTHER DECALS, MARKING, AND FINISHING.
2. ALL DIMENSIONS ARE IN INCHES.



EPOXY PRIMER 35

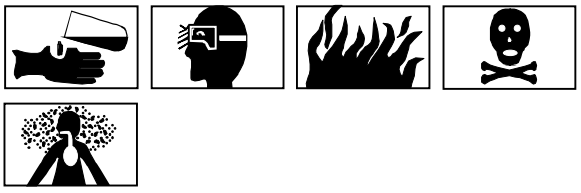


EPOXY PRIMER 33



POLYURETHANE COATING, HIGH SOLIDS 32

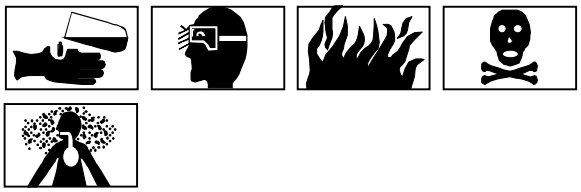
△3 SHADED AREAS ARE TO BE PRIMED USING EPOXY PRIMER (MIL-PRF-23377 OR MIL-PRF-85582). AFTER PRIMING, PAINT SHADED AREAS WITH GLOSS INTERNATIONAL ORANGE POLYURETHANE COATING (COLOR 12197) IAW FED-STD-595.



POLYURETHANE COATING, HIGH SOLIDS 32

△4 APPLY GLOSS BLACK (COLOR 17038) IAW FED-STD-595 (REFER TO MIL-STD-2161).

△5 FAIR SMOOTHLY AT BASE OF FUEL DUMP FAIRING (TYPICAL EACH DUMP TUBE FAIRING).

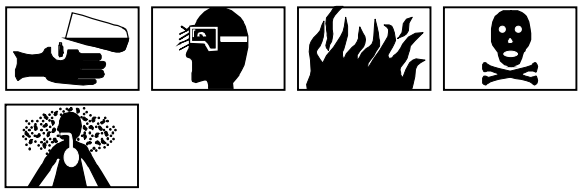


POLYURETHANE COATING, HIGH SOLIDS 32

△6 USE POUNCE PATTERN 10J1069-1. CENTER ON BOTTOM OF FUSELAGE AS SHOWN. APPLY GLOSS WHITE (COLOR 17875) IAW FED-STD-595.

△7 FAIR SMOOTHLY FROM BOTTOM OF STRIPE ON SIDE OF FUSELAGE TO SKIN LAP BETWEEN STUBWING AND FUSELAGE (TYPICAL BOTH SIDES OF FUSELAGE).

△8 USE POUNCE PATTERN 10J1068-1. CENTER ON BOTTOM OF FUSELAGE AS SHOWN.



POLYURETHANE COATING, HIGH SOLIDS 32

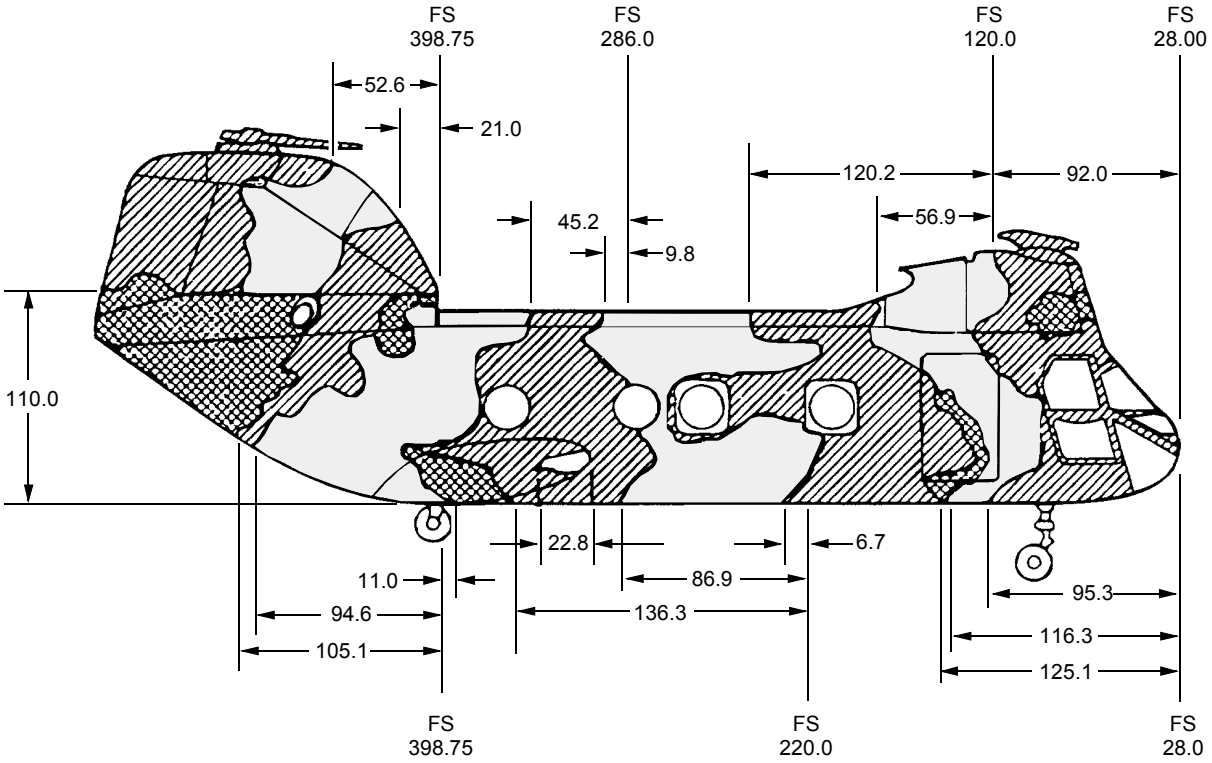
△9 APPLY GLOSS BLACK (COLOR 17038) IAW FED-STD-595 (REFER TO MIL-STD-2161).

△10 USE POUNCE PATTERN 10J1068-1. CENTER ON TUNNEL AS SHOWN.

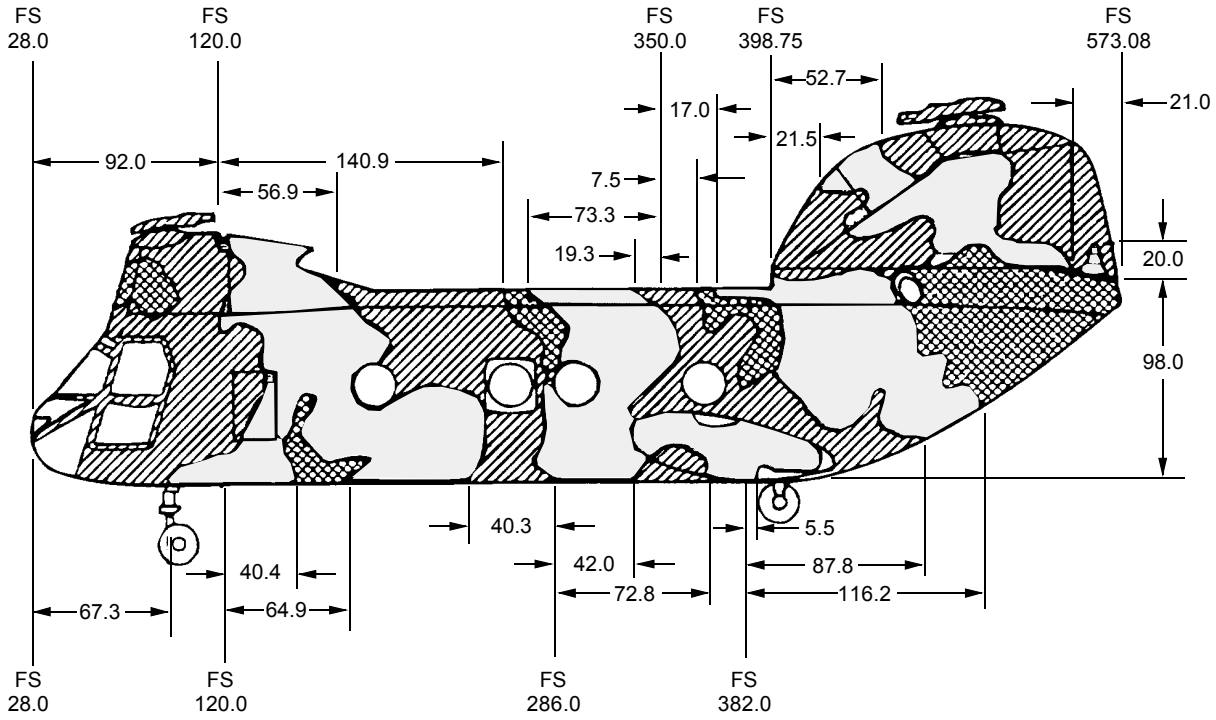
△11 START AT EDGE OF SKIN LAP ON LEADING EDGE OF STUBWING AND CONTINUE SMOOTHLY AFT ALONG ROWS OF RIVETS (TYPICAL EACH STUBWING.)

△12 AT BASE OF FORWARD PYLON, FOLLOW CREASE, DO NOT FOLLOW SKIN LAP.

Figure 7. External Marking and Finishing, HH-46D (Sheet 4)

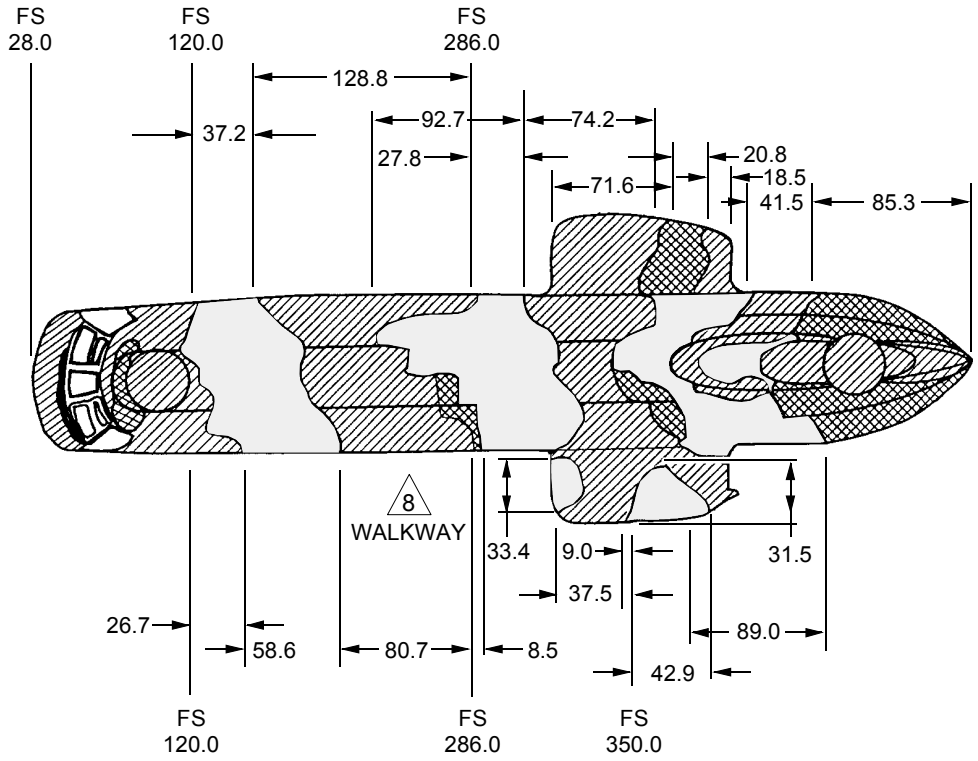


VIEW RIGHT SIDE

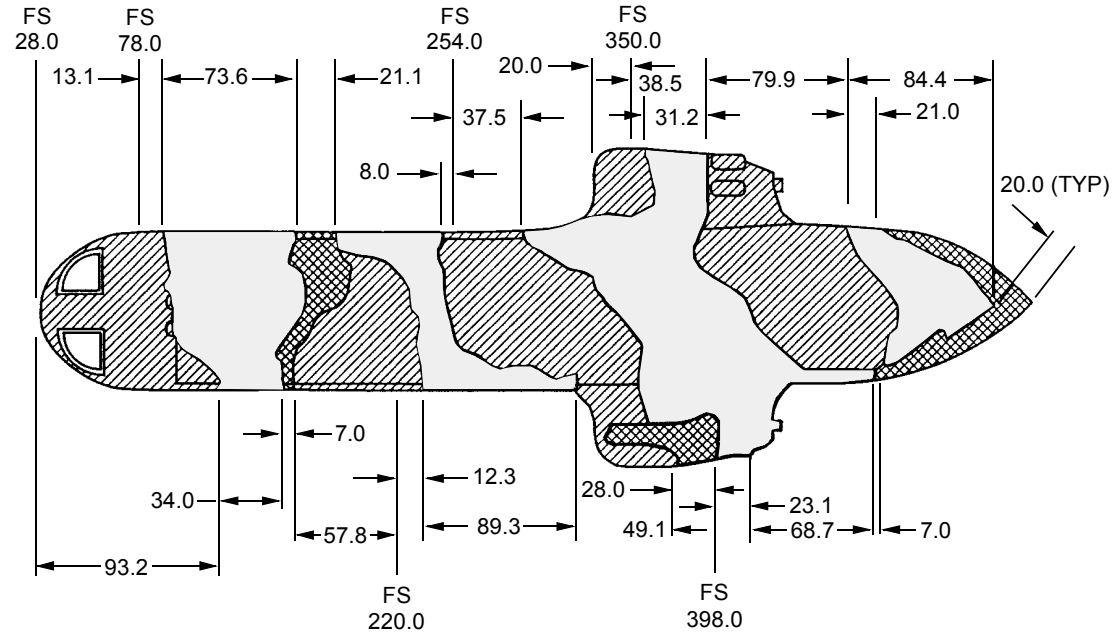


VIEW LEFT SIDE

Figure 8. External Marking and Finishing, CH-46E (Sheet 1 of 4)

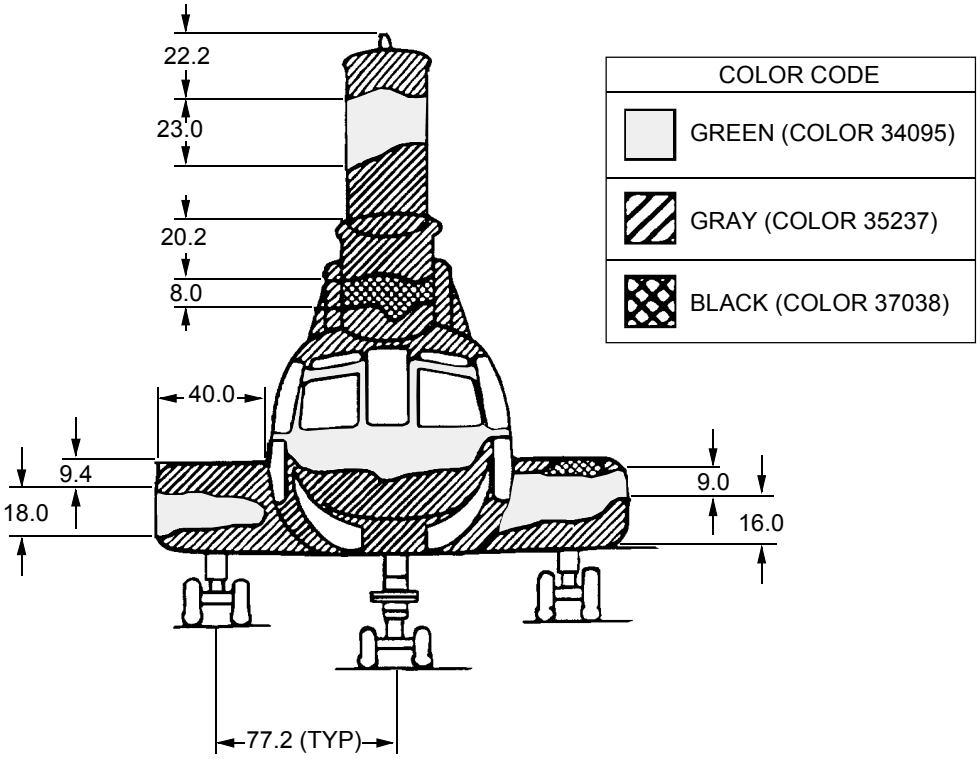


VIEW LOOKING DOWN



VIEW LOOKING UP

Figure 8. External Marking and Finishing, CH-46E (Sheet 2)



VIEW LOOKING AFT

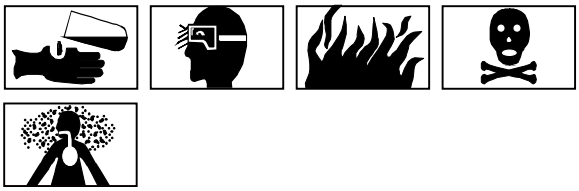
Figure 8. External Marking and Finishing, CH-46E (Sheet 3)

WARNING

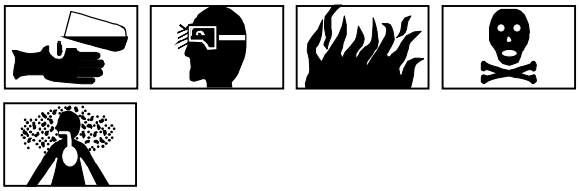
CONSULT HMWS PAGES FOR APPROPRIATE PRECAUTIONS AND SAFETY REQUIREMENTS FOR MATERIALS USED FOR EXTERNAL MARKING AND FINISHING.

NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL SHALL BE PAINTED IN ACCORDANCE WITH MIL-STD-2161.
2. SEAL EXTERIOR SURFACES IN ACCORDANCE WITH A1-H46AE-SRM-000, WP 005 00 PRIOR TO PAINTING.
3. UNLESS OTHERWISE SPECIFIED, COLORS ARE TO BE FED-STD-595A.

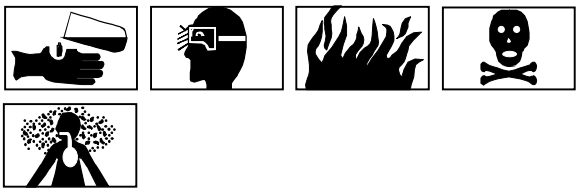


EPOXY PRIMER 35



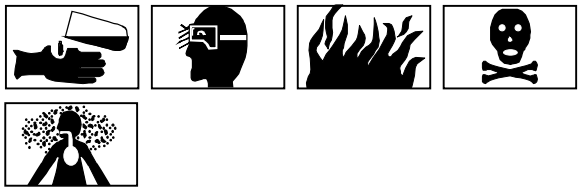
EPOXY PRIMER 33

4. APPLY ONE COAT OF LOW INFRARED REFLECTIVE EPOXY PRIMER (MIL-PRF-23377, TYPE II OR MIL-PRF-85582) TO A DRY FILM THICKNESS OF 0.6 TO 0.9 MILS.



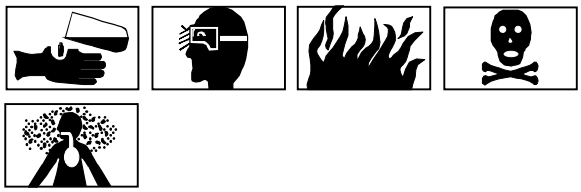
POLYURETHANE COATING, HIGH SOLIDS 32

5. ALL EXTERNAL MARKINGS SHALL BE BLACK (COLOR 37038) ON GRAY (COLOR 35237) OR GREEN (COLOR 34095) BACKGROUND AND GREEN (COLOR 34095) ON BLACK (COLOR 37038) BACKGROUND.
6. BOUNDARIES BETWEEN COLORS SHALL BE IRREGULAR AS SHOWN AND FADE INTO EACH OTHER WITH NO SHARP LINE OF DEMARCATION. A SIX (6) INCH BLEND LINE SHALL BE USED.



POLYURETHANE COATING, HIGH SOLIDS 32

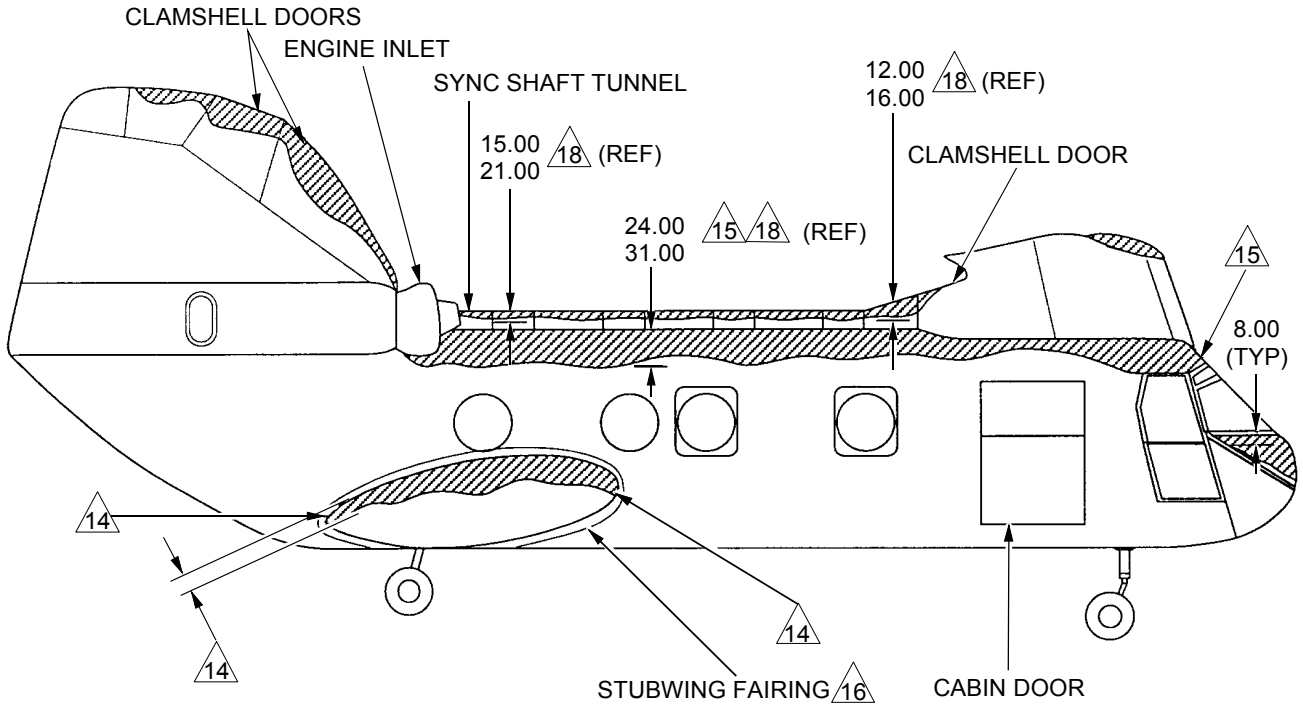
7. EXTERNAL COLORS SHALL BE TWO COATS OF BLACK COATING (COLOR 37038), GRAY (COLOR 35237), AND GREEN (COLOR 34095) AS APPLICABLE TO A DRY FILM THICKNESS OF 1.7 TO 2.3 MILS.



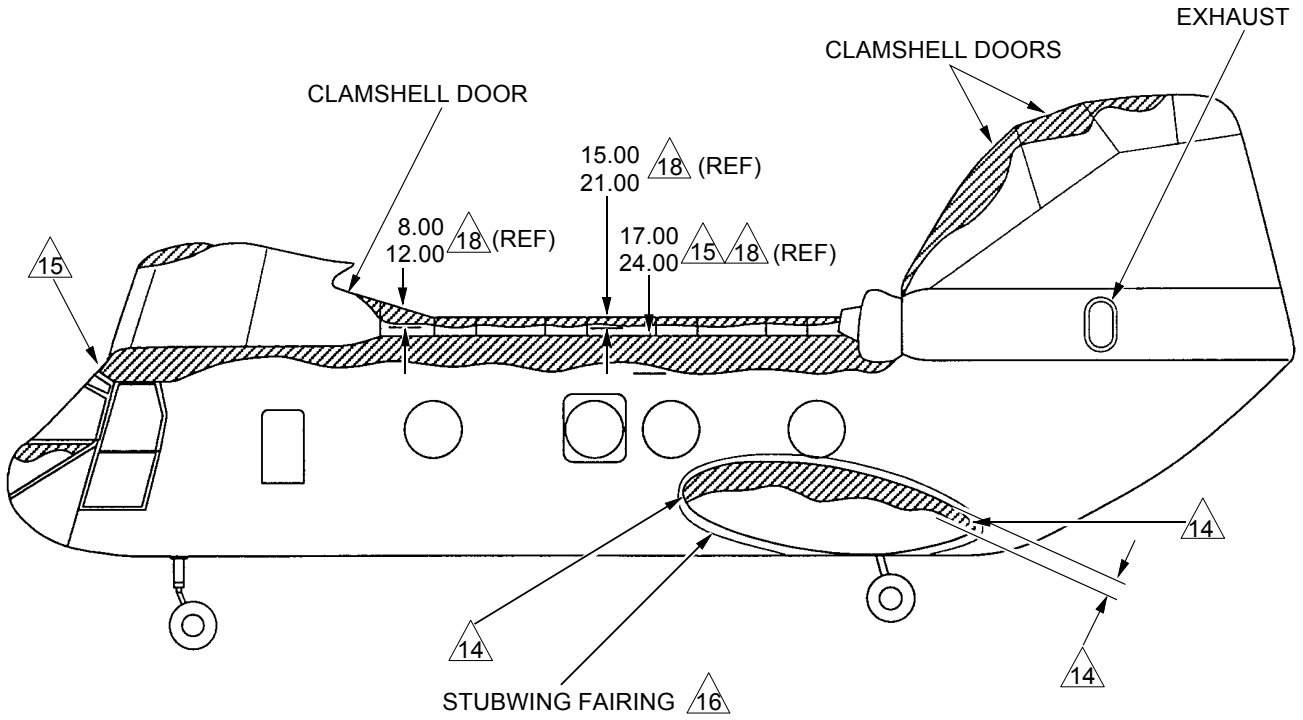
WALKWAY COMPOUND 31

8. PAINT WALKWAY USING WALKWAY COMPOUND FOLLOWING CAMOUFLAGE PATTERN FOR DIFFERENT COLORS, APPLY IAW MIL-W-5050.
9. THIS DRAWING AND DWG. NO. A02E4015/16 DEFINE THE REQUIREMENTS FOR INSIGNIA MARKINGS, INTERIOR AND EXTERIOR COLORS. WHERE CONFLICT EXISTS BETWEEN THIS DRAWING AND A02E4015/16, REQUIREMENT OF THIS DRAWING WILL PREVAIL.
10. ALL DIMENSIONS ARE IN INCHES.

Figure 8. External Marking and Finishing, CH-46E (Sheet 4)



VIEW RIGHT SIDE

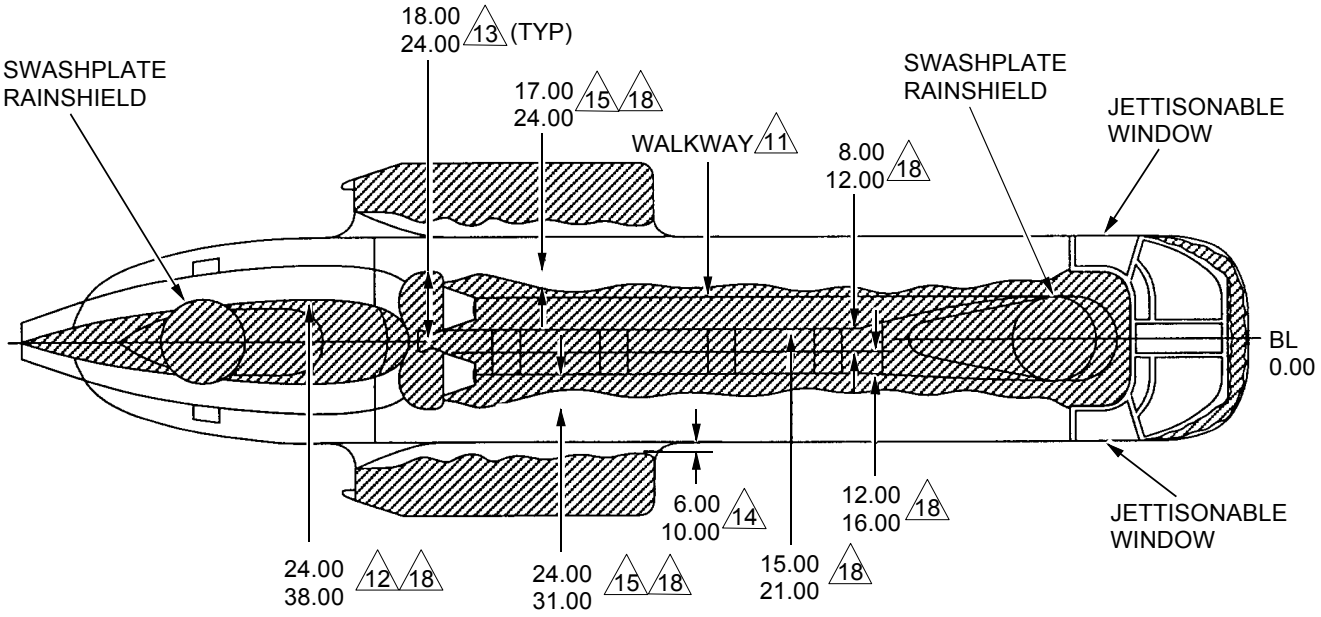


VIEW LEFT SIDE

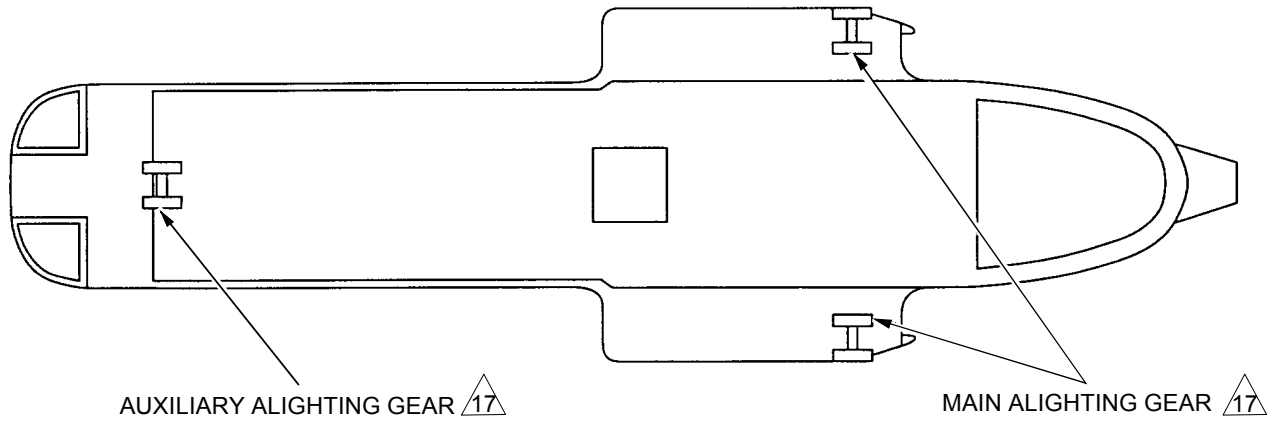
BLUE-GRAY (COLOR 35237)

GRAY (COLOR 36375)

Figure 9. External Marking and Finishing (Tactical), CH-46E (Sheet 1 of 5)



VIEW LOOKING DOWN



VIEW LOOKING UP

Figure 9. External Marking and Finishing (Tactical), CH-46E (Sheet 2)

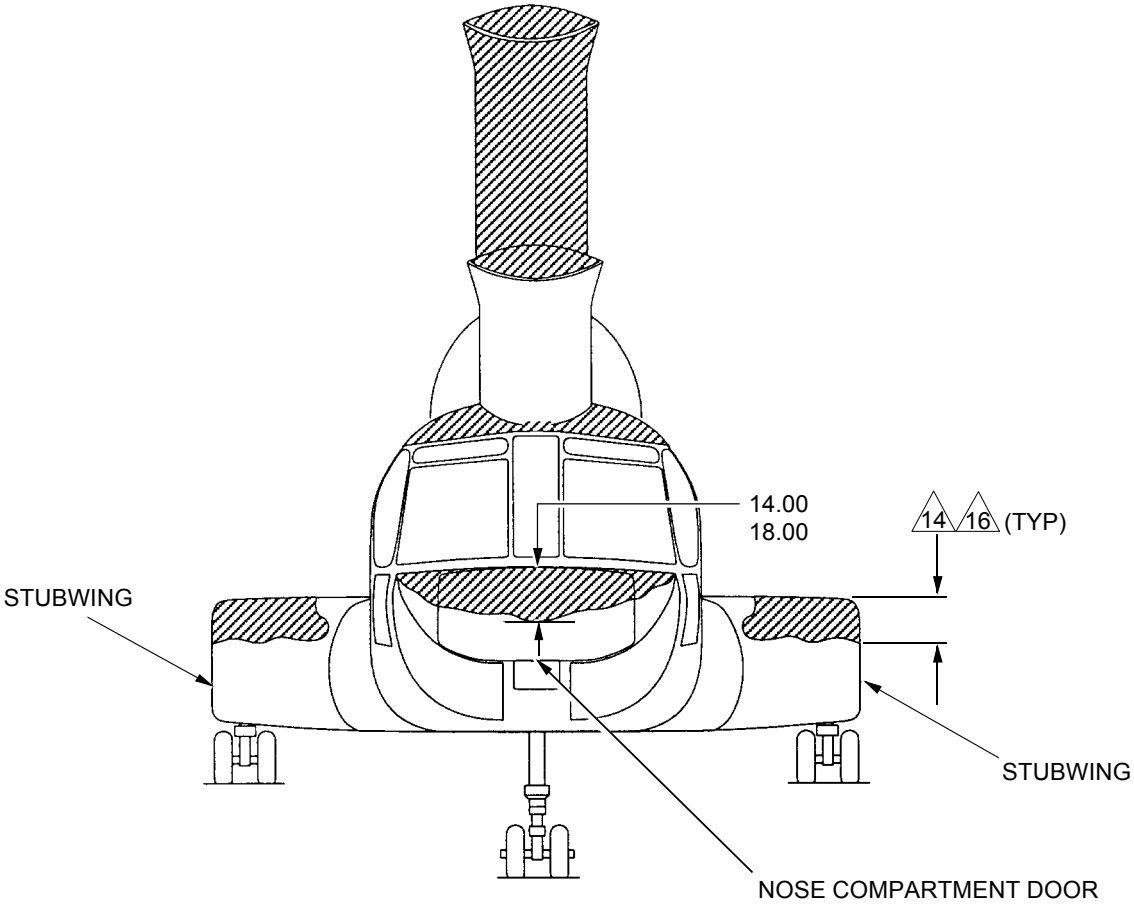


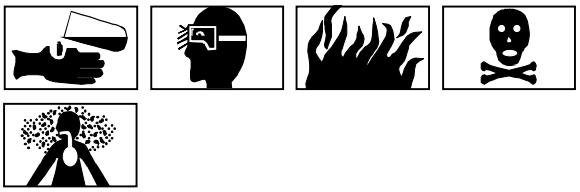
Figure 9. External Marking and Finishing (Tactical), CH-46E (Sheet 3)

WARNING

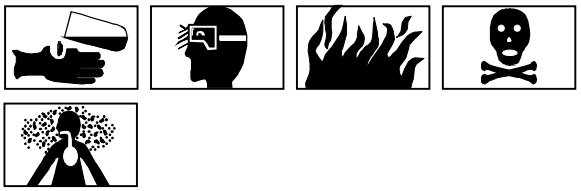
CONSULT HMWS PAGES FOR APPROPRIATE PRECAUTIONS AND SAFETY REQUIREMENTS FOR MATERIALS USED FOR EXTERNAL MARKING AND FINISHING.

NOTES:

1. ALL INFORMATION REQUIRED FOR PAINTING THE EXTERIOR OF THE AIRCRAFT IS CONTAINED IN CHERRY POINT DRAWING (96916) 13E1989 AND BOEING DRAWINGS (77272) A02E4016, A02E4018, AND A15E4000. WHERE THE REQUIREMENTS OF BOEING PAINT DRAWINGS, OTHER H-46 PAINT DRAWINGS, OR MANUALS CONFLICT WITH REQUIREMENTS SPECIFIED HEREIN, THE REQUIREMENTS OF THIS DRAWING SHALL APPLY.
2. PRIOR TO PAINTING, SEAL EXTERIOR SURFACES IAW A1-H46AE-SRM-000, WP 005 00.
3. PRIOR TO PAINTING, MASK ALL WINDOWS AND RUBBER SEALS.
4. PAINT IAW MIL-C-81907 AND MIL-F-18264 UNLESS OTHERWISE SPECIFIED.

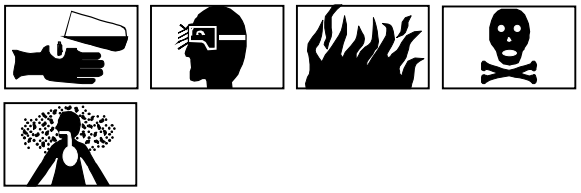


EPOXY PRIMER 35



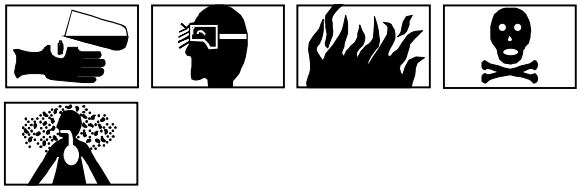
EPOXY PRIMER 33

5. APPLY ONE COAT OF LOW INFRARED, REFLECTIVE, EPOXY PRIMER (MIL-PRF-23377, TYPE II OR MIL-PRF-85582), TO A DRY FILM THICKNESS OF 0.6 TO 0.9 MILS.

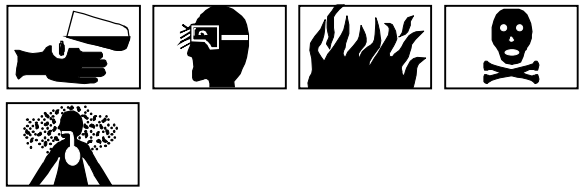


POLYURETHANE COATING, HIGH SOLIDS 32

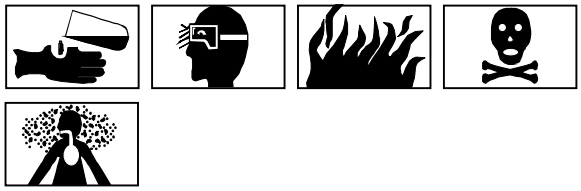
6. PAINT IAW FED-STD-595A, COLOR NUMBERS 35237 (BLUE-GRAY) AND 36375 (GRAY) AS SPECIFIED. THE TOP COAT SHALL BE TWO COATS OF POLYURETHANE COATING TO A DRY FILM THICKNESS OF 1.7 TO 2.3 MILS.
7. BOUNDARIES BETWEEN COLORS SHALL BE IRREGULAR, AS SHOWN, AND FADE INTO EACH OTHER WITH NO SHARP LINES OF DEMARCATION. USE A SIX (6) INCH BLEND LINE.
8. ALL DIMENSIONS ARE APPROXIMATE AND ARE USED FOR REFERENCE ONLY.
9. ALL MARKINGS ARE TO BE THE OPPOSITE COLOR OF THE BACKGROUND.



EPOXY PRIMER 35



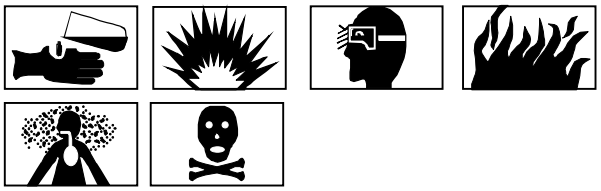
EPOXY PRIMER 33



POLYURETHANE COATING, HIGH SOLIDS 32

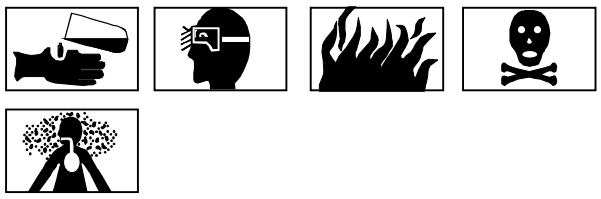
Figure 9. External Marking and Finishing (Tactical), CH-46E (Sheet 4)

NOTES (CONTINUED):



EPOXY COATING 36

10. INFORMATION FOR PAINTING ANTENNAS: ANTENNAS ARE TO BE PAINTED ONLY FOR CAUSE WHEN E AND E DESIGNATES REQUIREMENTS. BLADE AND WHIP ANTENNA BASES TO BE FINISHED WITH LOW INFRARED, REFLECTIVE, EPOXY PRIMER (MIL-PRF-23377, TYPE II OR MIL-PRF-85582) AND TWO COATS OF POLYURETHANE COATING. COLORS SHALL MATCH THE PRESCRIBED COLOR SCHEME. THE BLADE PORTION OF BLADE ANTENNAS IS TO BE FINISHED WITH ONE COAT OF CLEAR EPOXY COATING AND THEN APPLY TWO COATS OF BLACK (COLOR 37038) IAW WITH FED-STD-595A, MIL-STD-2161, AND MIL-F-18264. DO NOT PAINT: WHIP ANTENNAS, WIRE ANTENNAS, CLEAR PLASTIC WINDOWS OF IFF AND TACAN BLADE ANTENNAS, FLUSH ANTENNA COVERS, OR RADAR ALTIMETER ANTENNAS.



WALKWAY COMPOUND 31

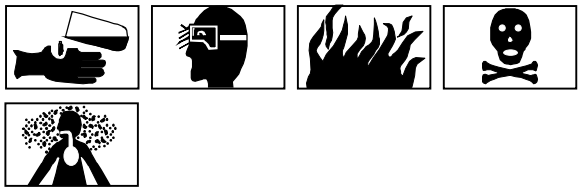
△11 PAINT WALKWAY USING WALKWAY COMPOUND FOLLOWING CAMOUFLAGE PATTERN FOR DIFFERENT COLORS IAW MIL-W-5050.

△12 FOR THE AFT CLAMSHELL DOORS, PATTERN IS TO BE CENTERED ON CLOSED CLAMSHELL DOORS AND IS TO RUN FROM THE BASE OF THE CLAMSHELL DOORS TO THE RAINSHIELD.

△13 TAKE MEASUREMENTS FROM MOST INBOARD EDGE OF EACH INLET. DO NOT PAINT INLET SCREENS OR VERTICAL SURFACES COLOR 35237.

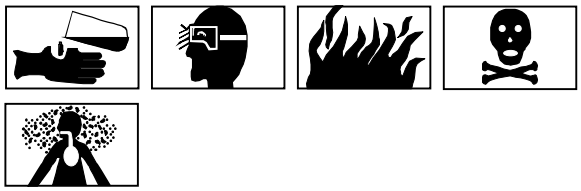
△14 USING THE MEASUREMENT SHOWN, WHICH IS TAKEN OUTBOARD FROM THE FAIRINGS, PAINT NO MORE THAN 1/3 OF THE WAY DOWN THE STUBWING OUTBOARD SIDE. IN THE FORE/AFT DIRECTION, START AT THE MOST AFT EDGE, BUT NOT UNDERNEATH, AND CONTINUE FORWARD NO MORE THAN 1/3 OF THE WAY DOWN THE STUBWING.

△15 PAINT FOLLOWING THE TOP FRAMES OF THE COCKPIT WINDSCREEN AND JETTISONABLE WINDOWS, BUT NOT ONTO THE FWD PYLON, AND ALONG THE TOP OF THE FUSELAGE TO A SMOOTH POINT AT THE ENGINE INLETS.



POLYURETHANE COATING, HIGH SOLIDS 32

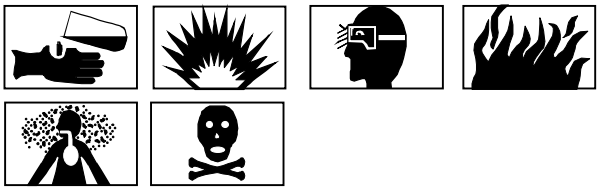
△16 STUBWING FAIRINGS ARE TO BE COLOR 36375.



POLYURETHANE COATING, HIGH SOLIDS 32

△17 PAINTABLE SURFACES OF ALIGHTING GEAR AND WHEELS ARE TO BE COLOR 36375.

△18 DIMENSIONS ARE TO EXTEND DOWN THE SIDES OF THE FUSELAGE.



EPOXY COATING 36

19. FINISH BATTERY COMPARTMENT USING WHITE EPOXY COATING (COLOR 17925) IAW FED-STD-595A.
20. ALL DIMENSIONS ARE IN INCHES.

Figure 9. External Marking and Finishing (Tactical), CH-46E (Sheet 5)

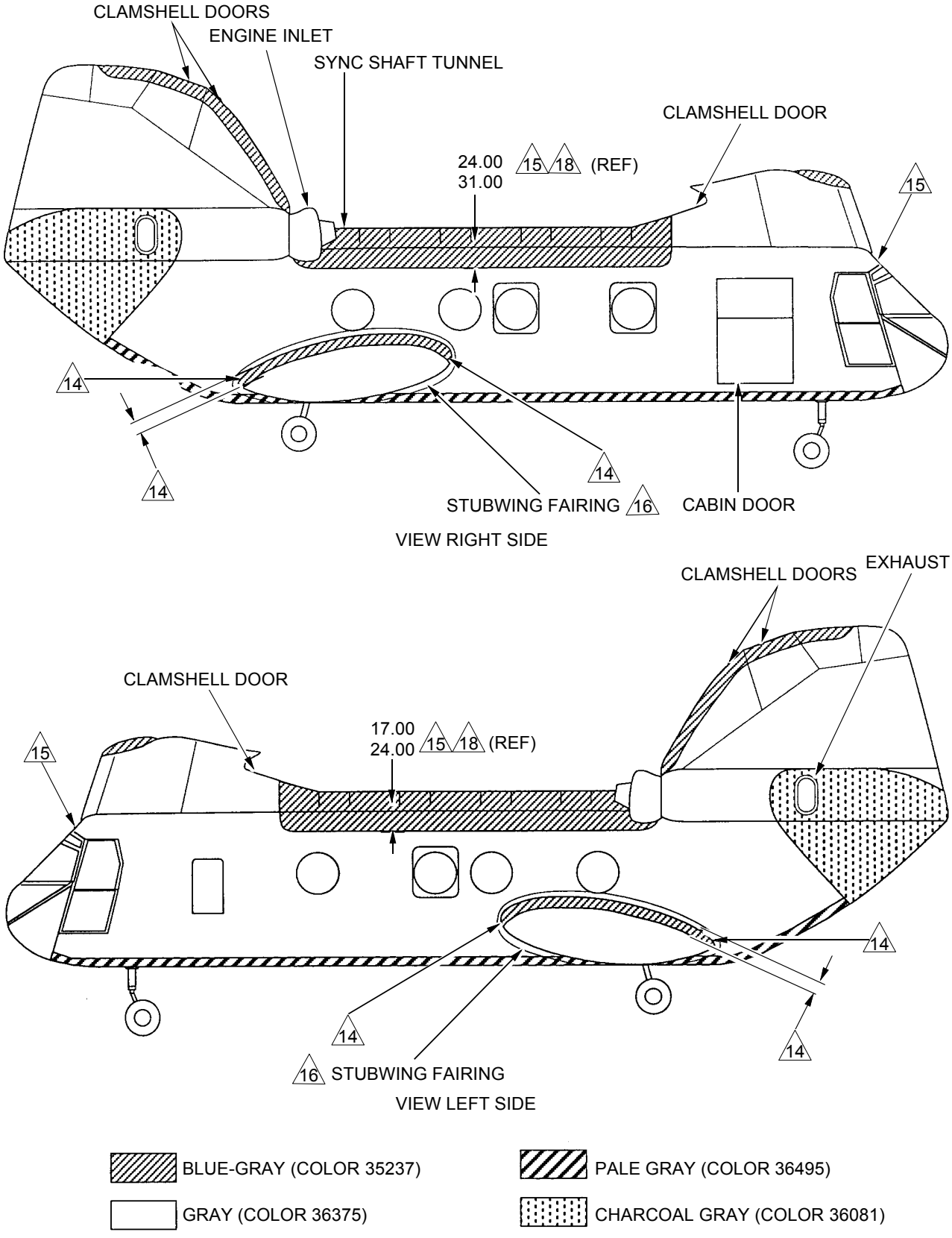
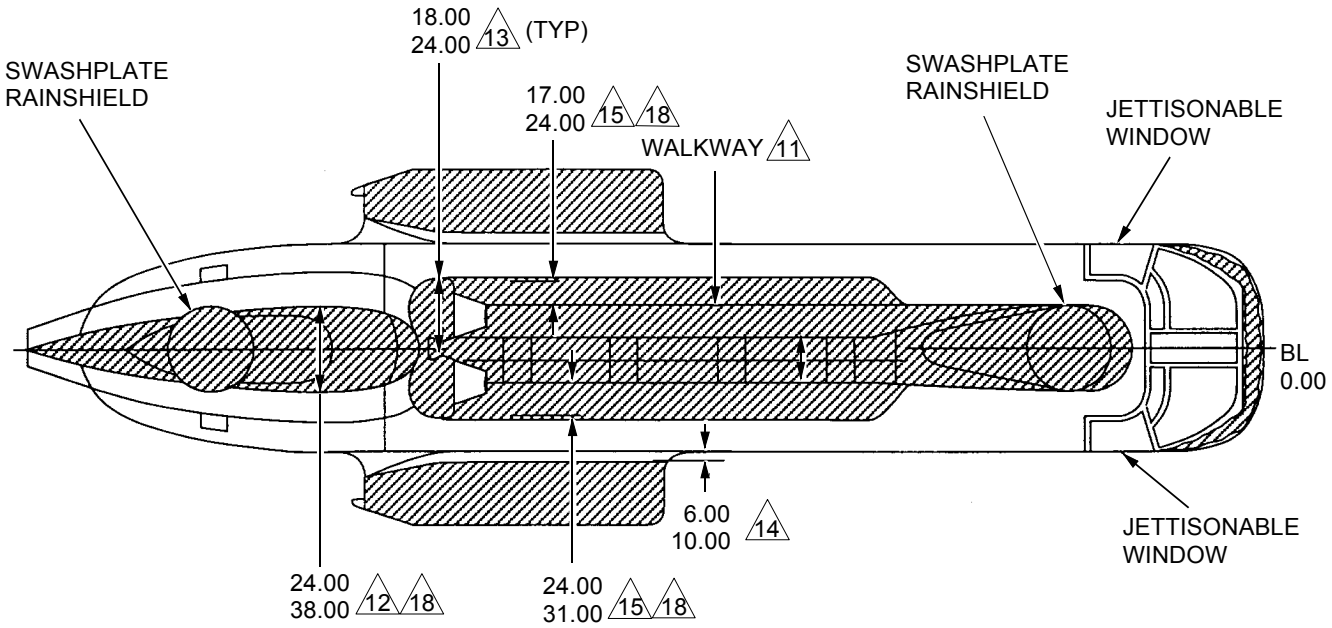
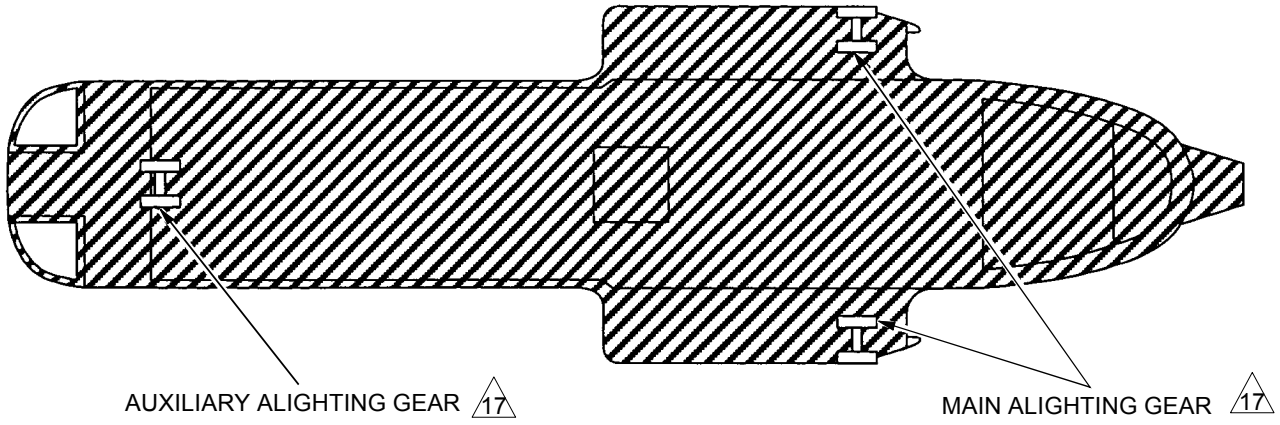


Figure 10. External Marking and Finishing (Tactical), CH-46D (Sheet 1 of 6)



VIEW LOOKING DOWN



VIEW LOOKING UP

Figure 10. External Marking and Finishing (Tactical), CH-46D (Sheet 2)

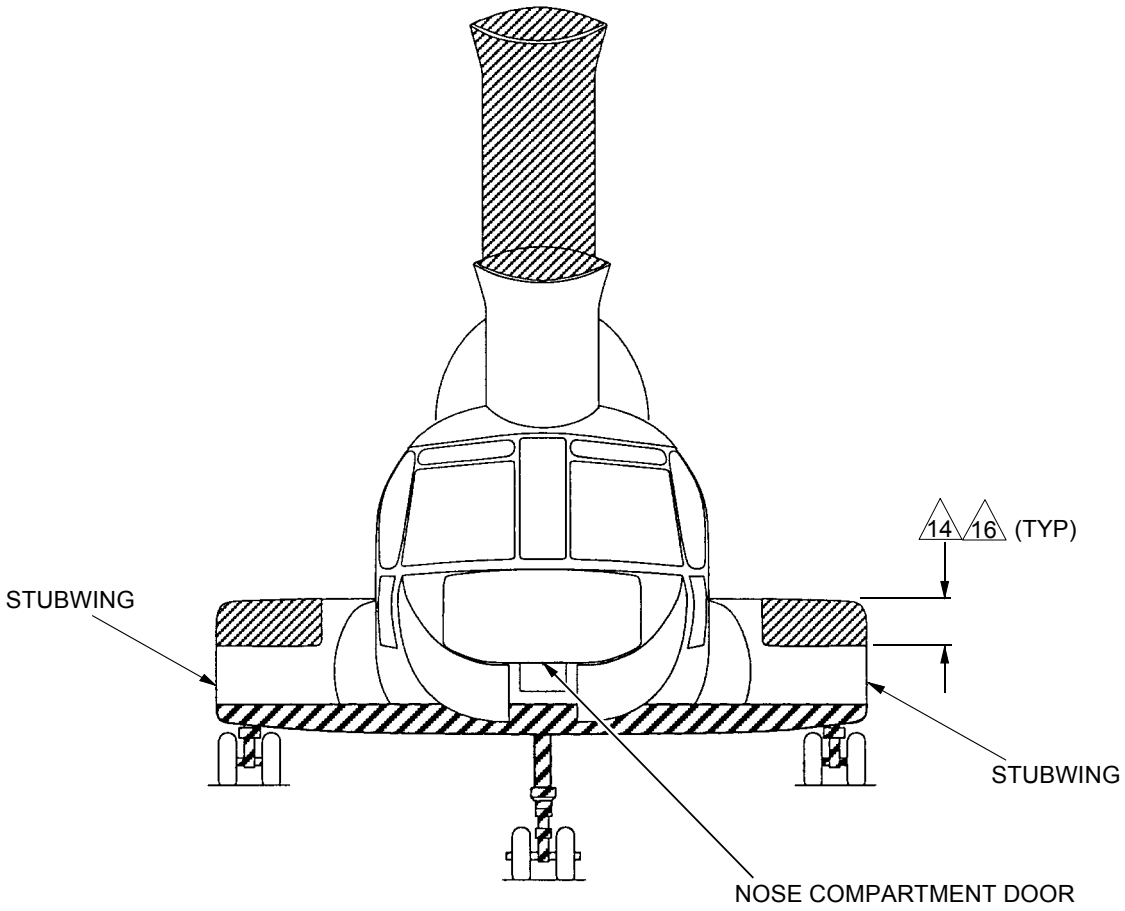


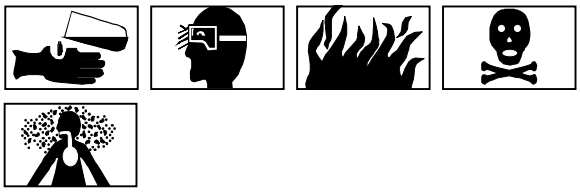
Figure 10. External Marking and Finishing (Tactical), CH-46D (Sheet 3)

WARNING

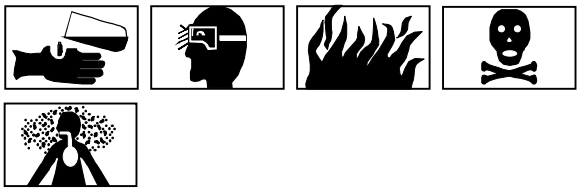
CONSULT HMWS PAGES FOR APPROPRIATE PRECAUTIONS AND SAFETY REQUIREMENTS FOR MATERIALS USED FOR EXTERNAL MARKING AND FINISHING.

NOTES:

1. ALL INFORMATION REQUIRED FOR PAINTING THE EXTERIOR OF THE AIRCRAFT IS CONTAINED IN CHERRY POINT DRAWING (96916) 13E2043 AND BOEING DRAWINGS (77272) A02E4016, A02E4018, AND A15E4000. WHERE THE REQUIREMENTS OF BOEING PAINT DRAWINGS, OTHER H-46 PAINT DRAWINGS, OR MANUALS CONFLICT WITH REQUIREMENTS SPECIFIED HEREIN, THE REQUIREMENTS OF THIS DRAWING SHALL APPLY.
2. PRIOR TO PAINTING, SEAL EXTERIOR SURFACES IAW A1-H46AE-SRM-000, WP 005 00.
3. PRIOR TO PAINTING, MASK ALL WINDOWS AND RUBBER SEALS.
4. PAINT IAW MIL-C-81907 AND MIL-F-18264 UNLESS OTHERWISE SPECIFIED.

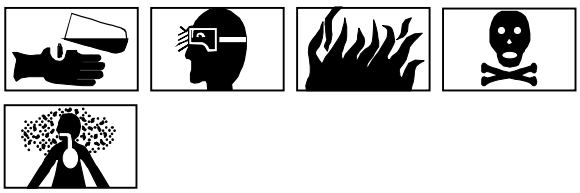


EPOXY PRIMER 35



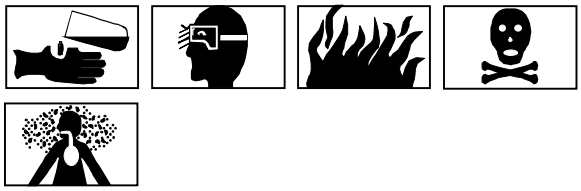
EPOXY PRIMER 33

5. APPLY ONE COAT OF LOW INFRARED, REFLECTIVE, EPOXY PRIMER (MIL-PRF-23377, TYPE II OR MIL-PRF-85582) TO A DRY FILM THICKNESS OF 0.6 TO 0.9 MILS.



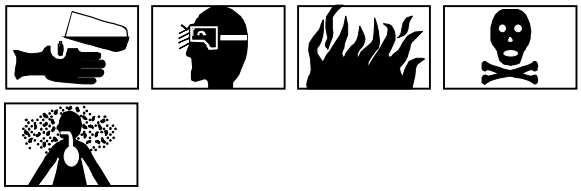
POLYURETHANE COATING, HIGH SOLIDS 32

6. PAINT IAW FED-STD-595A, COLORS BLUE-GRAY COLOR (35237), GRAY (COLOR 36320), CHARCOAL GRAY (COLOR 36081), AND PALE GRAY (COLOR 36495) AS SPECIFIED. THE TOPCOAT SHALL BE TWO COATS OF POLYURETHANE COATING TO A DRY FILM THICKNESS OF 1.7 TO 2.3 MILS.
7. BOUNDARIES BETWEEN COLORS SHALL FADE INTO EACH OTHER WITH NO SHARP LINES OF DEMARCATION.
8. ALL DIMENSIONS ARE APPROXIMATE AND ARE USED FOR REFERENCE ONLY.



POLYURETHANE COATING, HIGH SOLIDS 32

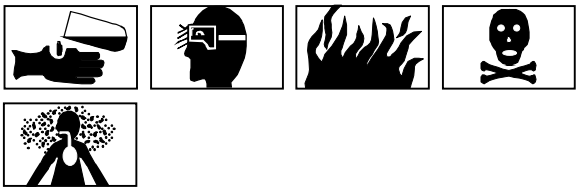
9. BACKGROUND COLORS (CHARCOAL GRAY (COLOR 36081) AND GRAY (COLOR 36320) SHALL HAVE MARKINGS PAINTED BLUE-GRAY (COLOR 35237). BACKGROUND COLORS BLUE-GRAY (COLOR 35237) AND PALE GRAY (COLOR 36495) SHALL HAVE MARKINGS PAINTED GRAY (COLOR 36320).



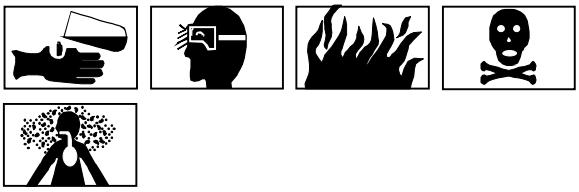
EPOXY PRIMER 35

Figure 10. External Marking and Finishing (Tactical), CH-46D (Sheet 4)

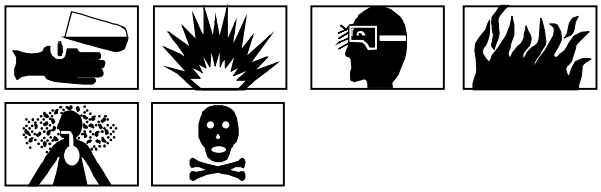
NOTES (CONTINUED):



EPOXY PRIMER 33

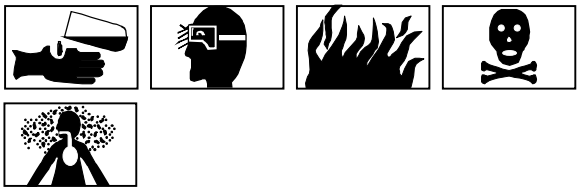


POLYURETHANE COATING, HIGH SOLIDS 32



EPOXY COATING 36

10. INFORMATION FOR PAINTING ANTENNAS: ANTENNAS ARE TO BE PAINTED ONLY FOR CAUSE WHEN E AND E DESIGNATES REQUIREMENTS.
BLADE AND WHIP ANTENNA BASES TO BE FINISHED WITH LOW INFRARED, REFLECTIVE, EPOXY PRIMER (MIL-PRF-23377,TYPE II OR MIL-PRF-85582) AND TWO COATS OF POLYURETHANE COATING. COLORS SHALL MATCH THE PRESCRIBED COLOR SCHEME. THE BLADE PORTION OF BLADE ANTENNAS IS TO BE FINISHED WITH ONE COAT OF CLEAR EPOXY COATING IAW MIL-C-22751 AND THEN APPLY TWO COATS OF BLACK IAW FED-STD-595A (COLOR 37038) AND IAW MIL-STD-2161 AND MIL-F-18264.
DO NOT PAINT: WHIP ANTENNAS, WIRE ANTENNAS, CLEAR PLASTIC WINDOWS OF IFF AND TACAN BLADE ANTENNAS, FLUSH ANTENNA COVERS OR RADAR ALTIMETER ANTENNAS.

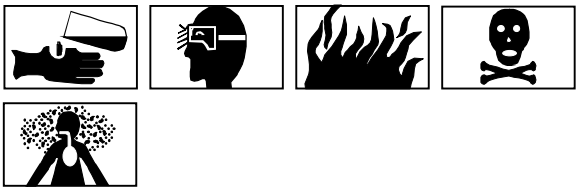


WALKWAY COMPOUND 31

△11 PAINT WALKWAY USING WALKWAY COMPOUND FOLLOWING CAMOUFLAGE PATTERN FOR DIFFERENT COLORS IAW MIL-W-5050.

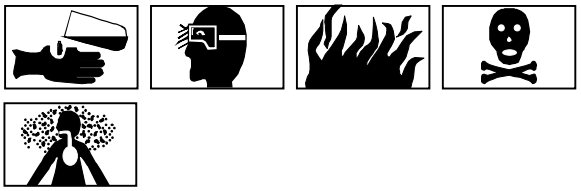
△12 FOR THE AFT CLAMSHELL DOORS, PATTERN IS TO BE CENTERED ON CLOSED CLAMSHELL DOORS AND IS TO RUN FROM THE BASE OF THE CLAMSHELL DOORS TO THE RAINSHIELD.

△13 TAKE MEASUREMENTS FROM MOST INBOARD EDGE OF EACH INLET. DO NOT PAINT INLET SCREENS OR VERTICAL SURFACES (COLOR 35237).



POLYURETHANE COATING, HIGH SOLIDS 32

△14 USING THE MEASUREMENT SHOWN, WHICH IS TAKEN OUTBOARD FROM THE FAIRINGS, PAINT NO MORE THAN 1/3 OF THE WAY DOWN THE STUBWING OUTBOARD SIDE. IN THE FORE/AFT DIRECTION, START AT THE MOST AFT EDGE, BUT NOT UNDERNEATH, AND CONTINUE FORWARD NO MORE THAN 1/3 OF THE WAY DOWN THE STUB WING.

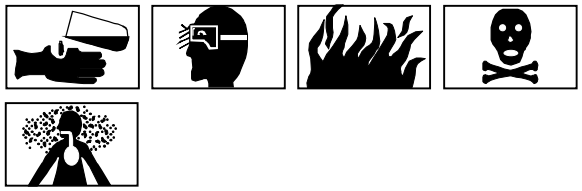


WALKWAY COMPOUND 31

Figure 10. External Marking and Finishing (Tactical), CH-46D (Sheet 5)

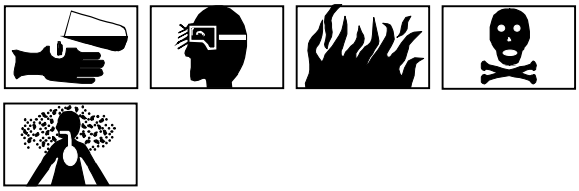
NOTES (CONTINUED):

15. PAINT ALONG THE TOP OF THE FUSELAGE TO A SMOOTH POINT AT THE ENGINE INLETS.



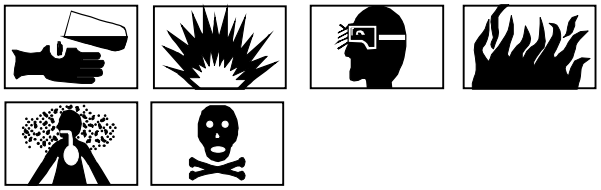
WALKWAY COMPOUND 31

16. STUBWING FAIRINGS ARE TO BE COLOR 36320.



WALKWAY COMPOUND 31

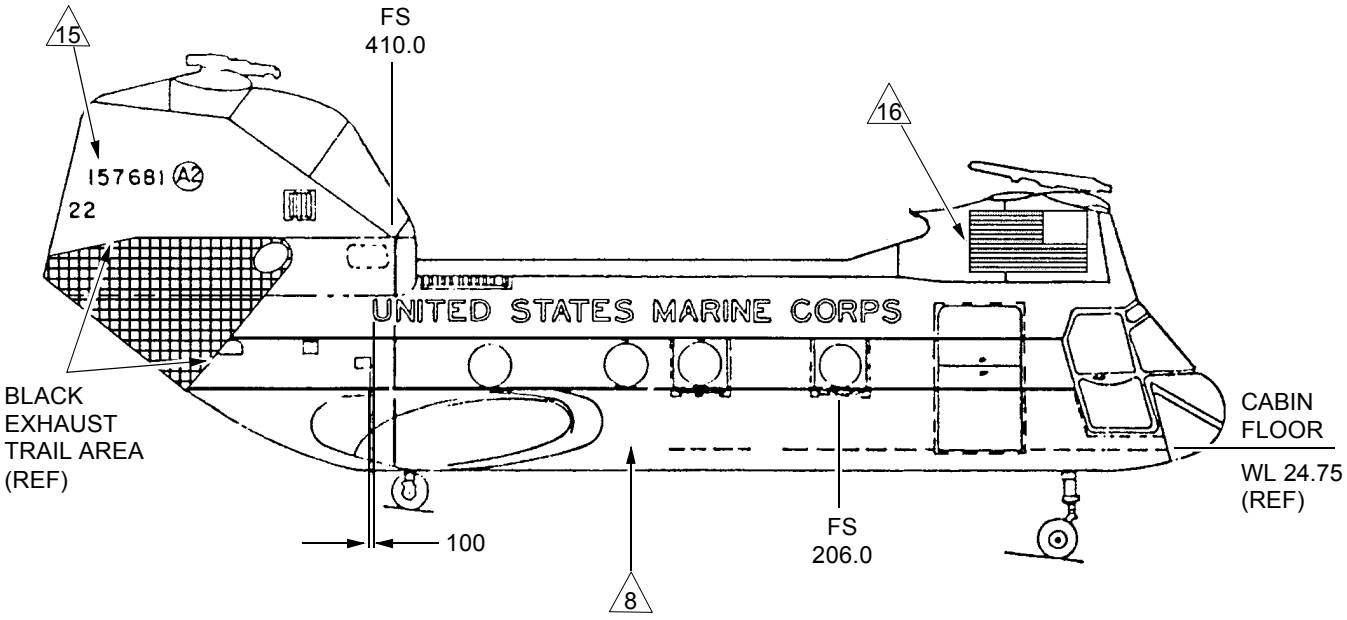
17. PAINTABLE SURFACES OF ALIGHTING GEAR AND WHEELS ARE TO BE COLOR 36495.
18. DIMENSIONS ARE TO EXTEND DOWN THE SIDES OF THE FUSELAGE.



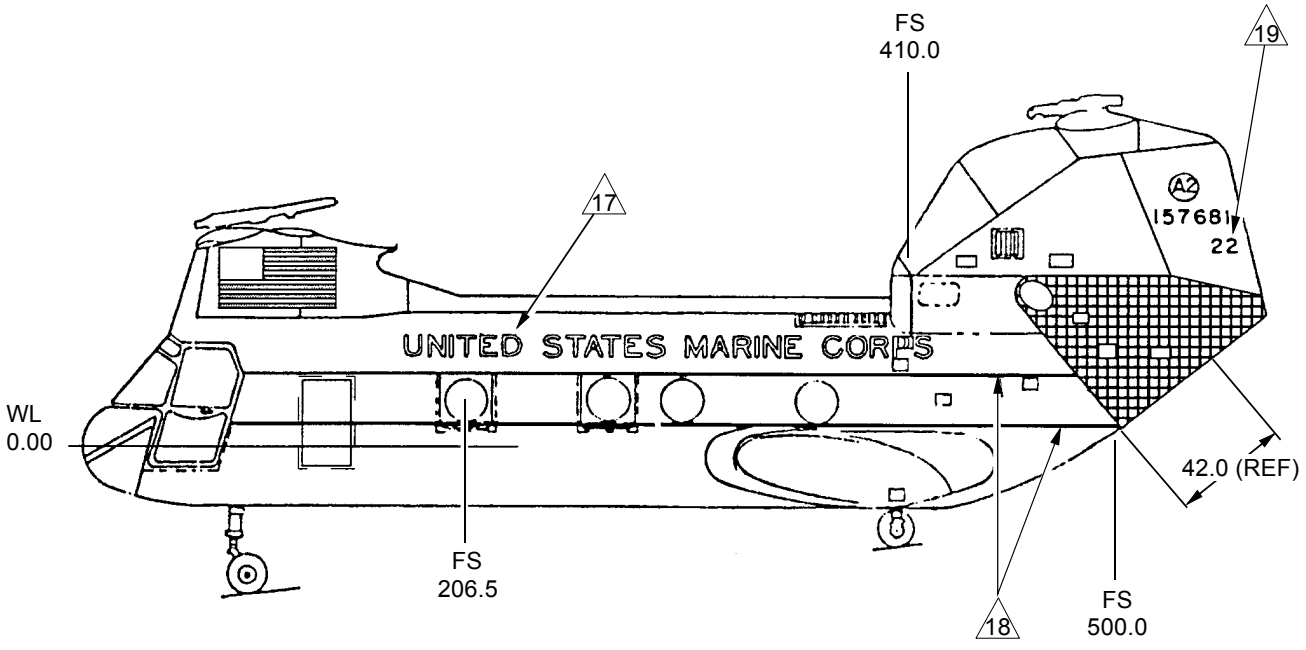
EPOXY COATING 36

19. FINISH BATTERY COMPARTMENT USING WHITE EPOXY COATING (COLOR 17925) IAW FED-STD-595A.
20. ALL DIMENSIONS ARE IN INCHES.

Figure 10. External Marking and Finishing (Tactical), CH-46D (Sheet 6)



VIEW RIGHT SIDE



VIEW LEFT SIDE

Figure 11. External Marking and Insignia, CH-46E HMX-1 (Sheet 1 of 5)

This Page Intentionally Left Blank

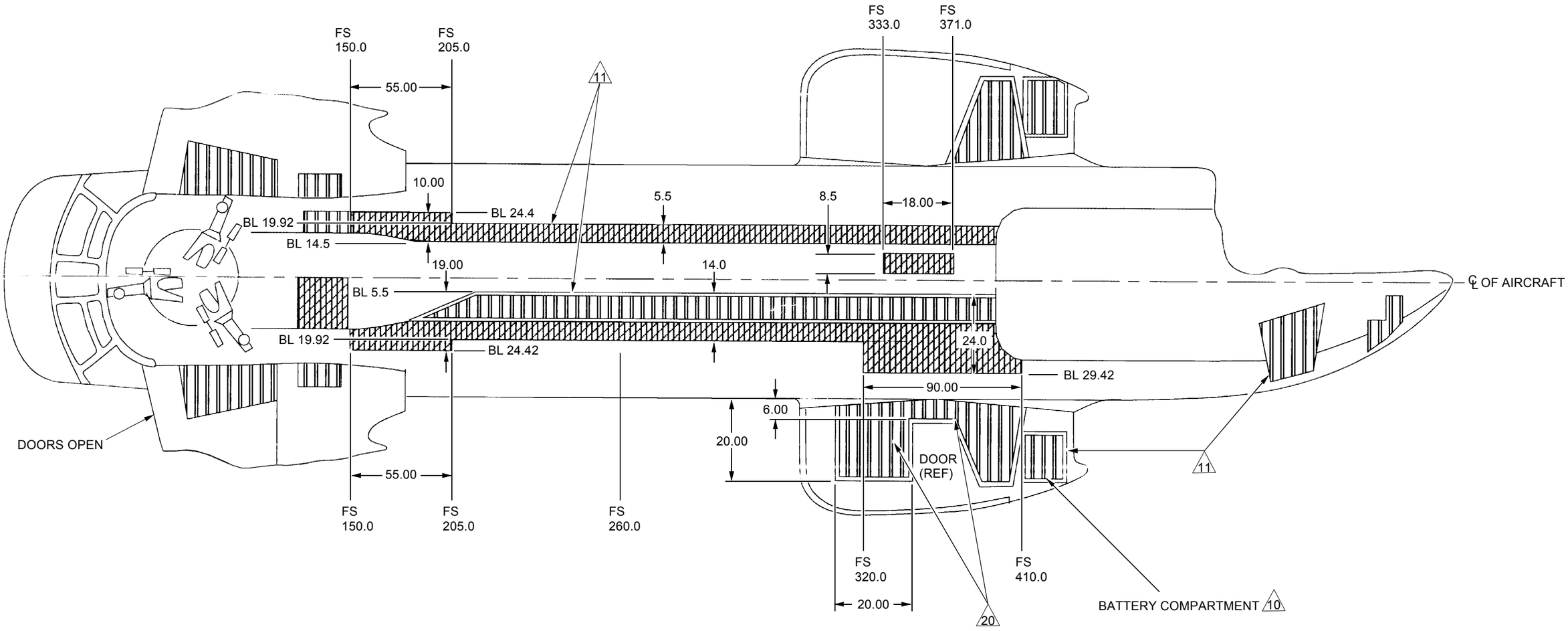
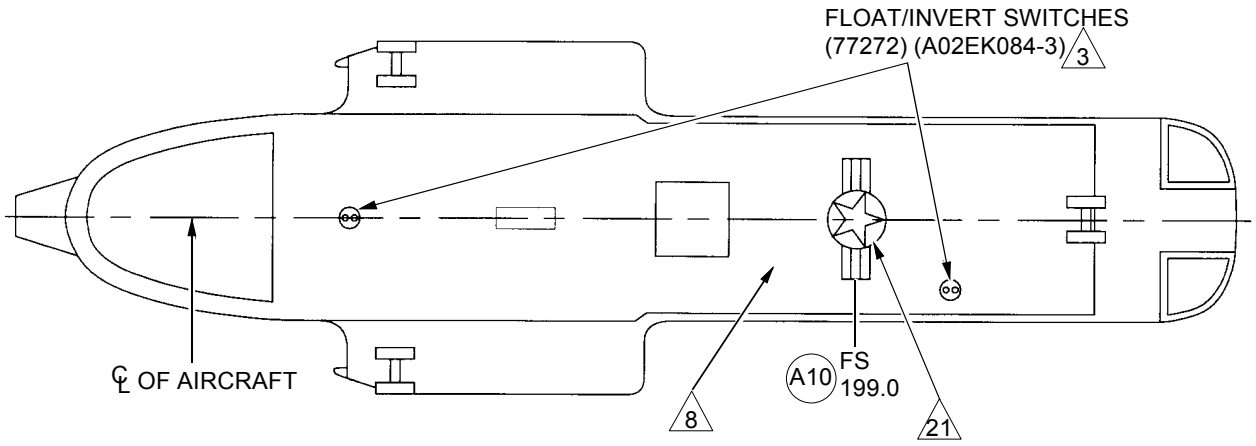


Figure 11. External Marking and Insignia, CH-46E HMX-1 (Sheet 2)



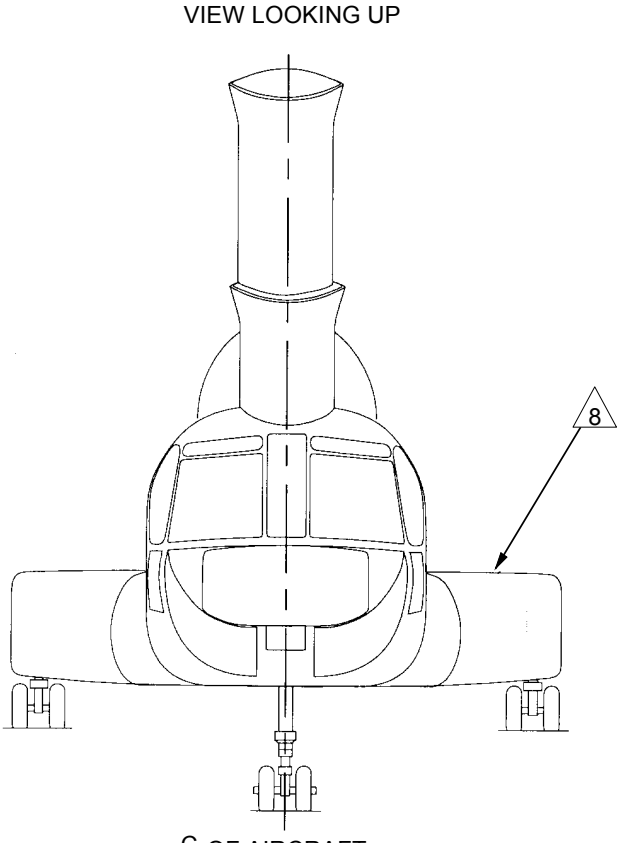


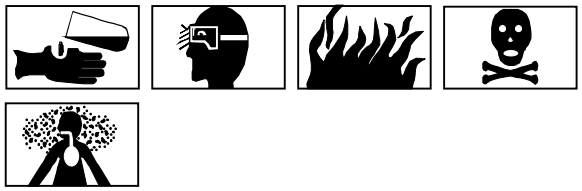
Figure 11. External Marking and Insignia, CH-46E HMX-1 (Sheet 3)

WARNING

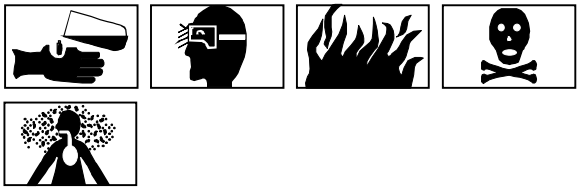
CONSULT HMWS PAGES FOR APPROPRIATE PRECAUTIONS AND SAFETY REQUIREMENTS FOR MATERIALS USED FOR EXTERNAL MARKING AND INSIGNIA.

NOTES:

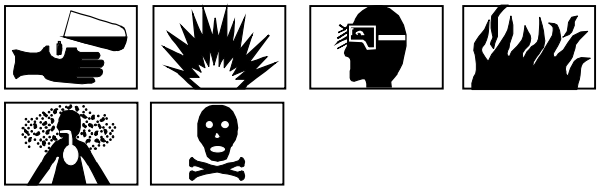
1. CHERRY POINT DRAWING (96916) 13E1701 IS SUPPLEMENTARY TO BOEING, VERTOL DIV DRAWING NUMBERS A02E4016, A02E4018, AND A15E4000. WHERE THE REQUIREMENT OF BOEING, VERTOL PAINT DRAWINGS, OTHER H-46 PAINT DRAWINGS OR MANUALS CONFLICT WITH REQUIREMENTS SPECIFIED HEREIN, THE REQUIREMENTS OF THIS DRAWING APPLY.
2. MARKINGS TO BE IAW MIL-STD-2161.
3. PRIOR TO PAINTING VARIOUS AREAS, ALL ADJACENT SURFACES AND PARTS, SUCH AS ANTENNAS, INSULATORS, TRANSMISSION SLIDER ASSEMBLIES, PLASTIC SCREENS, OIL HOLES AND ALUMINUM TUBING SHALL BE PROTECTED FROM OVERSPRAY BY PROPER MASKING.
4. DO NOT PAINT LANDING GEAR STRUT PISTONS AND HEATED PORTION OF ENGINE INLET.



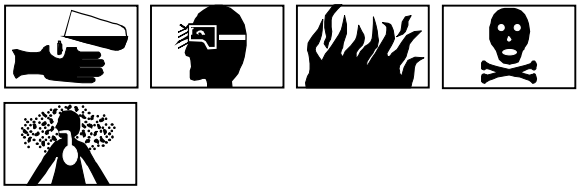
EPOXY PRIMER 35



EPOXY PRIMER 33



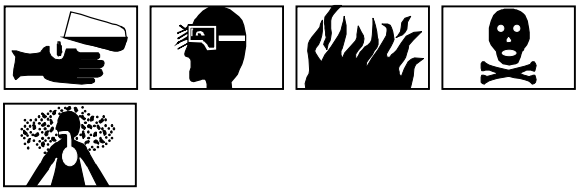
EPOXY COATING 36



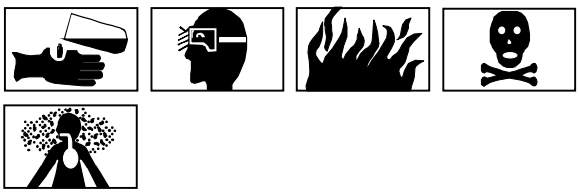
POLYURETHANE COATING, HIGH SOLIDS 32

5. ANTENNAS. BLADE ANTENNA BASES AND WHIP ANTENNA BASES ARE TO BE FINISHED WITH LOW INFRARED REFLECTIVE EPOXY PRIMER (MIL-PRF-23377 OR MIL-PRF-85582) AND EPOXY COATING. COLORS SHALL MATCH THE PRESCRIBED COLOR SCHEME OF THE PARTICULAR AIRCRAFT. DO NOT PAINT WHIP ANTENNAS, WIRE ANTENNAS, OR CLEAR PLASTIC WINDOWS IN IFF AND TACAN BLADE ANTENNAS. FLUSH ANTENNA COVERS, RADAR ALTIMETER ANTENNAS, AND BLADE PORTION OF BLADE ANTENNAS ARE TO BE FINISHED WITH TWO COATS OF CLEAR EPOXY COATING AND THEN APPLY THREE COATS OF BLACK POLYURETHANE COATING (COLOR 37038) IAW MIL-STD-2161.
6. UNLESS OTHERWISE SPECIFIED, PAINT IN ACCORDANCE WITH MIL-C-81907, EXCEPT THAT THICKNESS SHALL BE IAW MIL-F-18264.
7. SEAL EXTERIOR SURFACES A1-H46AE-SRM-000, WP 006 00 PRIOR TO PAINTING.
8. PAINT PROVIDED FROM US PAINT CO. THE FOLLOWING AWL GRIP/ALUM GRIP PAINT NUMBERS ARE TO BE USED:

S3001/S9001	30-7-94 EPOXY PRIMER
AWL-CAT/-G4124	DARK GREEN TOPCOAT
G2001	9100 GLOSS BLACK POLYESTER URETHANE TOPCOAT
G5003	BLUE TOPCOAT
G7008	RED TOPCOAT
G8009	6300 OFF-WHITE POLYESTER URETHANE TOPCOAT
F3016	CLEAR-COTE ACRYLIC URETHANE TOPCOAT
F9060	GOLD TOPCOAT



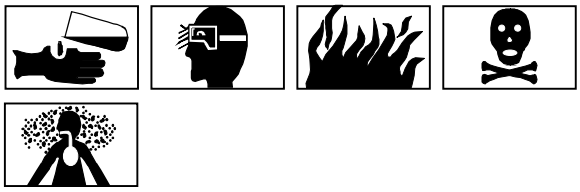
EPOXY PRIMER 35



EPOXY PRIMER 33

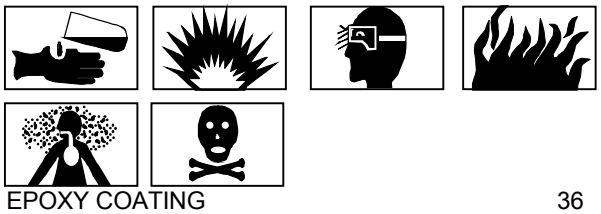
Figure 11. External Marking and Insignia, CH-46E HMX-1 (Sheet 4)

NOTES (CONTINUED):



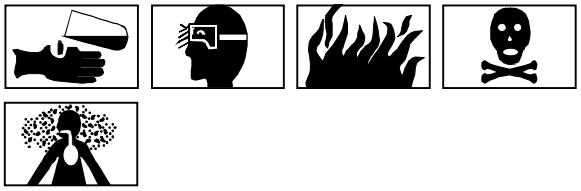
POLYURETHANE COATING, HIGH SOLIDS 32

9. APPLY ONE COAT OF EPOXY PRIMER (MIL-PRF-23377 OR MIL-PRF-85582) TO A DRY FILM THICKNESS OF 0.6 TO 0.9 MILS. APPLY TWO COATS OF POLYURETHANE COATING AS APPLICABLE TO A DRY FILM THICKNESS OF 1.7 TO 2.3 MILS.



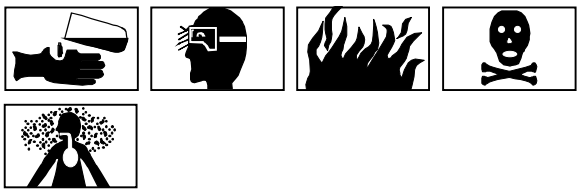
EPOXY COATING 36

△10 FINISH BATTERY COMPARTMENT USING WHITE EPOXY COATING (COLOR 17925) IAW FED-STD-595A.

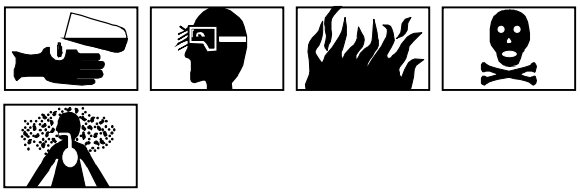


WALKWAY COMPOUND 31

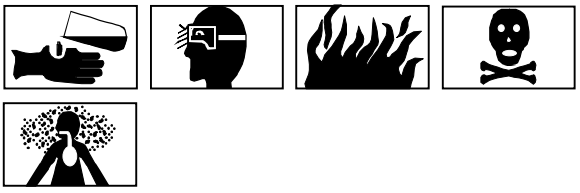
△11 ALL WALKWAYS AND WORK PLATFORMS TO BE COMPLETELY COVERED WITH BLACK WALKWAY COMPOUND (COLOR 37038) APPLIED IAW MIL-W-5050. DIMENSION WALKWAYS IAW 13E1019-1 AND 13E1019-2 COLOR SCHEME.



SYNTHETIC LACQUER 37



EPOXY PRIMER 35



EPOXY PRIMER 33

12. ROTOR HEADS AND ROTOR BLADES SHALL BE BLACK (A-A-3164, COLOR 37038) IAW FED-STD-595 OVER LOW INFRARED REFLECTIVE EPOXY PRIMER (MIL-PRF-23377, TYPE II OR MIL-PRF-85582).
13. ALL LETTERING TO BE OLD ENGLISH STYLE.
(A4)14. ALL DIMENSIONS ARE APPROXIMATE AND ARE TO BE USED FOR REFERENCE ONLY.
△15 BUREAU NUMBERS ARE 4.00 INCHES HIGH. PAINT NUMBERS 1.00 INCH BELOW FORMATION LIGHT AND 1.00 AFT OF CANTED DECK (BOTH SIDES OF AIRCRAFT).
△16 FLAG IS 19.50 INCHES HIGH BY 40.00 INCHES WIDE. BLUE FIELD IS 10.50 INCHES HIGH BY 16.00 INCHES WIDE WITH 1.25 INCH HIGH BY 1.25 INCH WIDE STARS. STRIPES ARE 1.50 INCHES WIDE. BOTTOM EDGE OF FLAG IS 5.50 INCHES ABOVE BOTTOM EDGE OF WORK PLATFORM, AND APPROXIMATELY 0.75 TO 1.00 INCH (A3) FROM LEADING EDGE OF WORK PLATFORM. PAINT FIRST STRIPE RED (BOTH SIDES OF AIRCRAFT).
△17 4.50 INCHES ABOVE TOP GOLD STRIPE. LETTERS ARE 8.00 INCHES HIGH. LETTERS BEGIN 4.00 INCHES FWD OF FIRST CABIN WINDOW (BUBBLE). LETTERS END 1.00 INCH FROM FORWARD MOST STEPWELL ABOVE STUBWING IN LEFT SIDE VIEW AS SHOWN ABOVE (BOTH SIDES OF AIRCRAFT).
△18 STRIPES ARE 3.00 INCHES HIGH CONSISTING OF A 2.00 INCH WHITE STRIPE SURROUNDED BY 0.50 INCH GOLD STRIPE. BOTH STRIPES START WHERE COCKPIT DOORS MEET AIRFRAME. TOP STRIPE RUNS ALONG THE TOP OF ALL CABIN WINDOWS. BOTTOM STRIPE RUNS ALONG BOTTOM OF ALL CABIN WINDOWS. TOP STRIPE ENDS WHERE BLACK AREA BEGINS. BOTTOM STRIPE ENDS WHERE CARGO RAMP MEETS AIRFRAME (BOTH SIDES OF AIRCRAFT).
△19 MODEX IS 7.00 INCHES ABOVE BLACK EXHAUST TRAIL AREA, APPROXIMATELY 2.00 INCHES FORWARD OF TRAILING EDGE OF AFT PYLON. NUMBERS ARE 4.00 INCHES HIGH, 22, 18, 19, ETC. (BOTH SIDES OF AIRCRAFT).
△20 DO NOT PAINT DOOR FASTENERS WITH WALKWAY PAINT.
△21 NATIONAL STAR INSIGNIA DIM AND COLORS TO BE IAW NAS1082, TYPE K (STAR BASIC DIAMETER TO BE 30.00±4.00).
22. ALL DIMENSIONS ARE IN INCHES.

Figure 11. External Marking and Insignia, CH-46E HMX-1 (Sheet 5)

a. To ensure adhesion to finish, ensure that surfaces are clean and free from contamination. After cleaning, check contamination by performing a water-break test as follows:

(1) Atomize a mist of distilled water onto the surface.

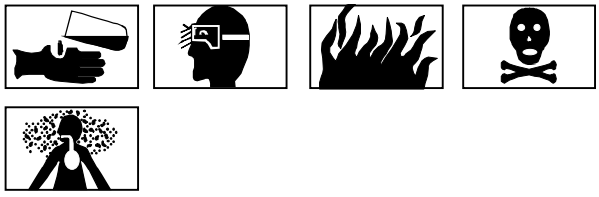
(2) If the surface supports an unbroken film of water, the area is clean, and the finish will adhere properly. If the water droplets accumulate into globules, recleaning is required.

(3) If the area does not pass the water-break test, clean as directed in Work Package (WP) 005 00.

b. Protect parts adjacent to area to be refinished from overspray by masking with protective paper and tape. These parts include antennas and insulators, transparent acrylic plastic windows, control cables and pulleys, adjustable screw threads, lubrication fittings, oil holes, aluminum tubing (hydraulic or fuel), and the inside surfaces of tanks.

c. Ensure that the spray equipment has an in-line water separator installed to prevent moisture from contaminating the finish.

d. Ensure that techniques of application and film thickness of finish materials applied are in accordance with MIL-F-18264.



Acrylic Lacquer 24

CAUTION

Do not paint engine inlet areas.

e. Coat decals located aft of FS 410 with clear acrylic lacquer (MIL-PRF-81352). Spray a minimum of four coats (approximately 0.001 inch total thickness) over decal and 1/4 inch of surrounding area. Allow 15 to 30 minutes air drying between coats.

4. FINISHING OF METAL SURFACES.

Support Equipment Required

Nomenclature	Part No./ Type Designation
Apron, Rubber	MIL-A-41829
Faceshield	L-F-36
Gloves	ZZ-G-381, Type I
Gloves, Vinyl	MIL-G-82242
Goggles, Industrial, Rubber Frame	A-A-1813
Respirator, Canister Type	GGG-M-125/6

Materials Required

Nomenclature	Specification No./ Part No.
Abrasive Cloth, Aluminum Oxide, No. 320	P-C-451
Aircraft Exterior Cleaning Compound	MIL-PRF-85570, Type II
Chemical Conversion Coating	MIL-C-81706, Class 1A
Epoxy Coating, Engine Gray	MIL-PRF-22750, Color 16081

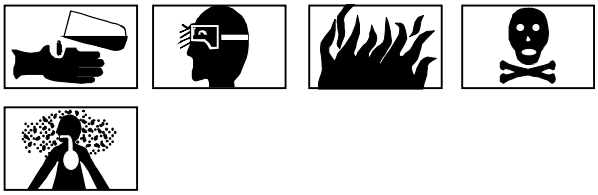
Materials Required (Continued)

Nomenclature	Specification No./ Part No.
Epoxy Primer	MIL-PRF-23377
Epoxy Primer	MIL-PRF-85582 (Altn For MIL-PRF-23377)
Lubricating Oil	MIL-PRF-32033
Sealant	MIL-PRF-81733
Talcum Powder	—
Tape, Masking, Waterproof Adhesive	ASTM D5486

5. GENERAL.

a. After corrosion treatment, clean affected area. Refer to WP 005 00.

b. Brush apply chemical conversion coating to aluminum surfaces. Refer to WP 004 00.

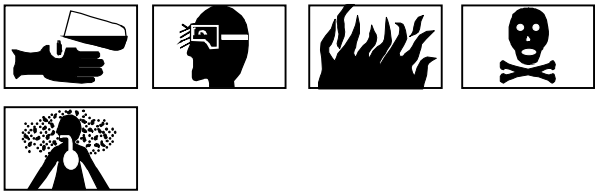


Sealant 38

Lubricating Oil 26

c. If a metal surface is reduced more than 0.005 inch by the removal of corrosion, fill surface depressions with sealant. Before sealing, coat any fasteners in the area with talcum powder or lubricating oil to prevent sealant adhering to the fasteners.

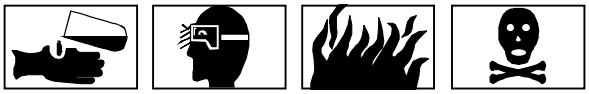
d. Apply one coat epoxy primer (MIL-PRF-23377 or MIL-PRF-85582) to surfaces which will be finished with paint topcoat. Apply two coats of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582) to surfaces which will not be finished with paint topcoat. Refer to NAVAIR 01-1A-509.



Sealant 38

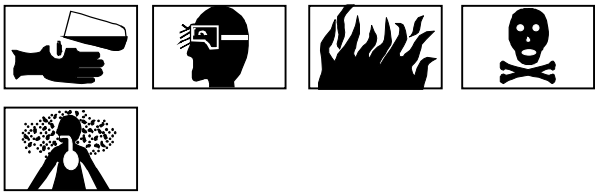
e. Sealant shall be applied to davit door doublers, fuel cell access door sills, torque box, and fuel jettison valve access door doublers (sills).

6. BATTERY COMPARTMENT AREAS.



Aircraft Exterior Cleaning Compound 4

a. After corrosion treatment, clean affected area with cleaning compound and allow to thoroughly dry.



Chemical Conversion Coating 10

b. Using a brush, apply chemical conversion coating to aluminum surfaces.

c. Finish battery compartment and battery drain area with two coats of epoxy primer, (MIL-PRF-23377 or MIL-PRF-85582), followed by two coats of gloss white polyurethane coating. Refer to NAVAIR 01-1A-509.

7. HELICOPTER SKIN TO COMPOSITE STUBWING (WITH AFC 379). Apply paint to a four inch band above and below the faying surfaces of the stubwing to fuselage skin and stubwing to fuselage skin and stubwing torque box, as follows:


Aircraft Exterior Cleaning Compound 4

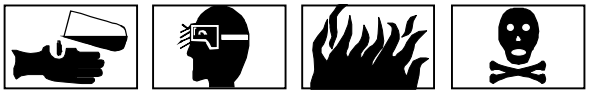
a. After corrosion treatment, clean the area to be painted thoroughly, using cleaning compound.

b. Press one inch wide masking tape over the area to be painted. Use the tape roll to apply pressure.

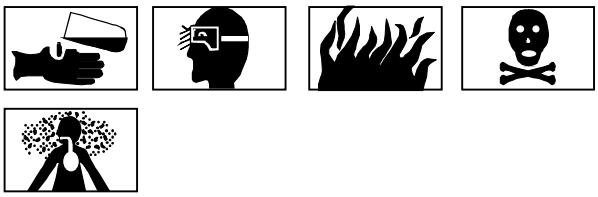
c. Pull the tape off with an abrupt motion, at right angles to the structure.

d. Ensure no paint was removed with the tape. If paint sticks to the tape, remove the remaining loose paint.

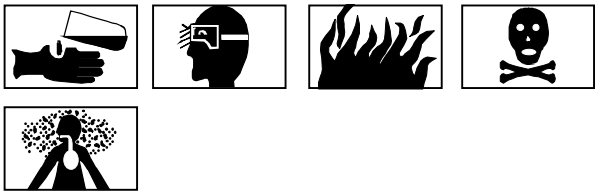
e. Lightly scuff sand the surface to be painted. Use abrasive cloth.

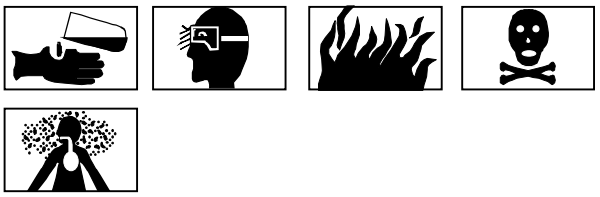

Aircraft Exterior Cleaning Compound 4

f. Clean the area to be painted. Use cleaning compound.

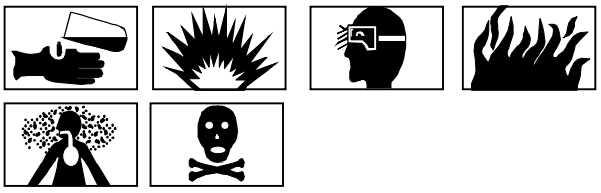

Chemical Conversion Coating 10

g. Brush apply chemical conversion coating on any bare aluminum.


Epoxy Primer 35


Epoxy Primer 33

h. Apply two coats of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582) in accordance with MIL-C-22751. Allow four hours between applications.


Epoxy Coating 36

i. Apply two coats of epoxy coating in accordance with MIL-C-22751. Allow adequate drying time between coats.

8. EXTERIOR SURFACES - FUSELAGE.

Support Equipment Required

Nomenclature	Part No./ Type Designation
Faceshield	L-F-36
Gloves	ZZ-G-381, Type I

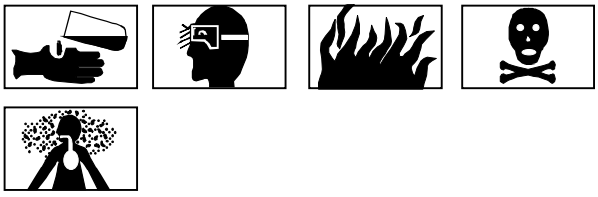
Support Equipment Required (Continued)

Nomenclature	Part No./ Type Designation
Faceshield	L-F-36
Gloves, Vinyl	MIL-G-82242
Goggles, Industrial, Rubber Frame	A-A-1813
Respirator, Canister Type	GGG-M-125/6

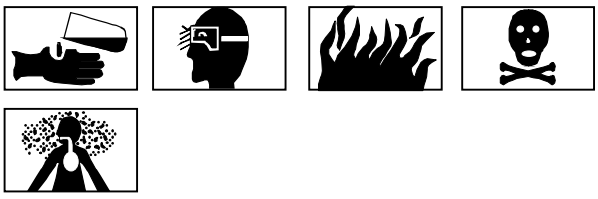
Materials Required

Nomenclature	Specification No./ Part No.
Antistatic Coating	BMS10-21
Coating, Polyurethane, Black	MIL-C-46168, Color 37038
Coating, Polyurethane, High Solids, Green	MIL-PRF-85285 Color 34095
Epoxy Coating, Clear	MIL-PRF-22750, Color 17925
Epoxy Primer	MIL-PRF-23377
Epoxy Primer	MIL-PRF-85582
Epoxy Primer, Low Infrared Reflectance	MIL-PRF-23377, Type II
Thinner, Cellulose Nitrate	A-A-857

9. ALUMINUM AND ALUMINUM ALLOYS.

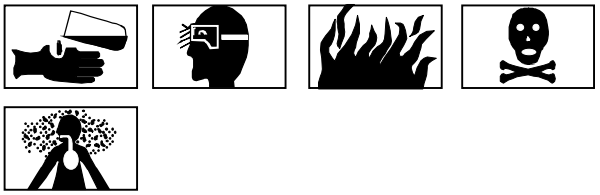


Epoxy Primer 35



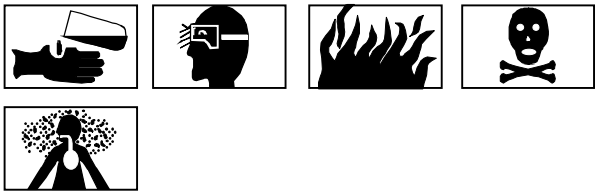
Epoxy Primer 33

a. On HH-46D and UH-46D helicopters, apply one coat of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582).



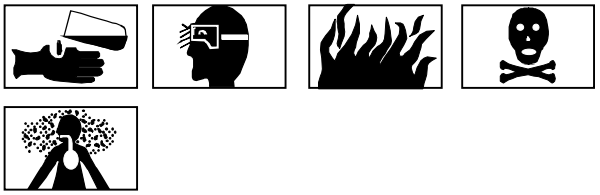
Epoxy Primer 35

b. On CH-46E helicopters, apply one coat of low infrared reflectance epoxy primer (MIL-PRF-23377, Type II).



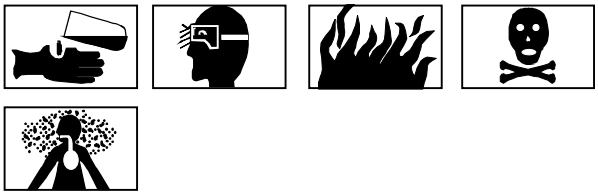
Polyurethane Coating, High Solids 32

c. On HH-46D and UH-46D helicopters, apply two coats of gloss engine gray polyurethane (MIL-PRF-85285, color 16081). Allow adequate drying time between coats.



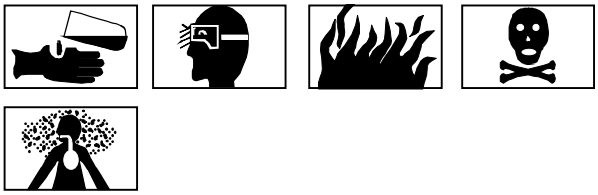
Polyurethane Coating, High Solids 32

d. On HH-46D helicopters, apply two coats of gloss international orange polyurethane in accordance with figure 2 (MIL-PRF-85285, Color 12197). Allow adequate drying time between coats.

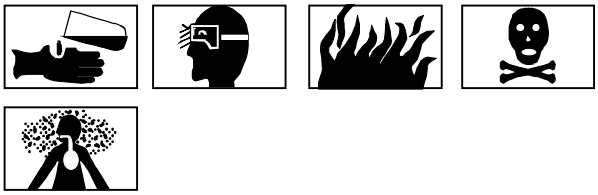


Polyurethane Coating, High Solids 32

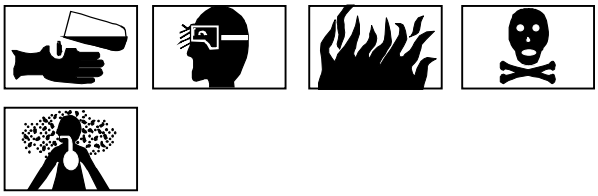
e. On CH-46E helicopters. apply two coats of polyurethane coating (MIL-PRF-85285, color 34095) (refer to figure 3 for paint description). Allow adequate drying time between coats.



Epoxy Primer 35



Epoxy Primer 33

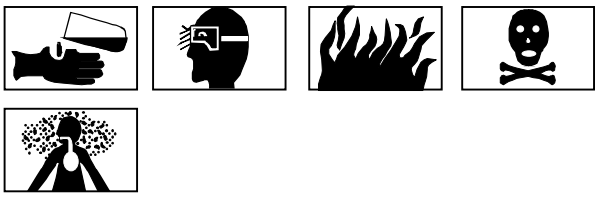


Polyurethane Coating, High Solids 32

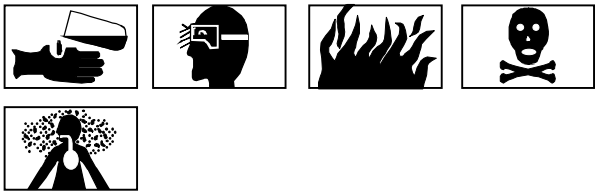
10. ARMOR. On Ch-46E helicopters, refinish engine exterior armor plating by applying one coat of low infrared reflectance epoxy primer (MIL-PRF-23377, Type II or MIL-PRF-85582). Then apply two coats of polyurethane coating (MIL-PRF-85285, color 37038) to reflect paint scheme of figure 3.

11. COMPOSITE STRUCTURES. Helicopters with AFC 379 have stubwings made of graphite-filled composite material. Refinish composite structures the same as aluminum. Refer to EXTERIOR SURFACES-FUSELAGE, this WP.

12. FIBERGLASS. Refinish fiberglass the same as aluminum. Refer to EXTERIOR SURFACES FUSELAGE, this WP. Refinish fiberglass rotor blades as follows:



Epoxy Primer 35

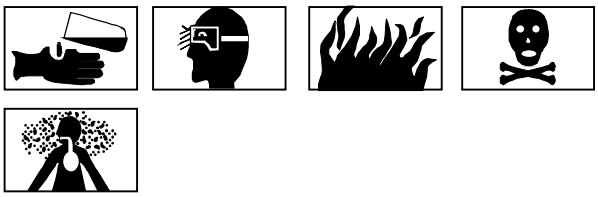


Epoxy Primer 33

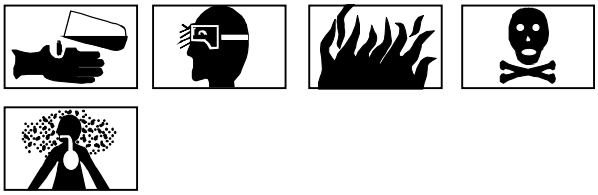
NOTE

A coating "cracks true" when it cracks in the exact location that the base metal cracks. Ensure that all primers "crack true".

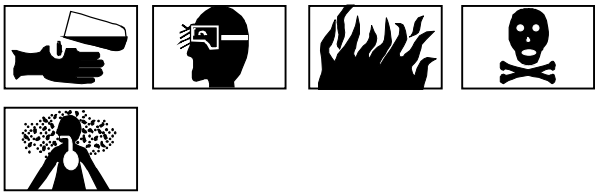
a. Apply epoxy primer (MIL-PRF-23377 (one hour drying time) or MIL-PRF-85582 (two hour drying time)) by spray application to 0.0006 to 0.0009 inch dry film thickness. If temperature is below 70°F (21°C), a longer drying time (two to three hours) will be required. Maximum drying time for primer is 36 hours.



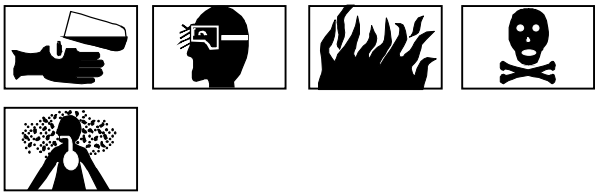
Antistatic Coating 39



Cellulose-Nitrate Thinner 16



Epoxy Primer 35



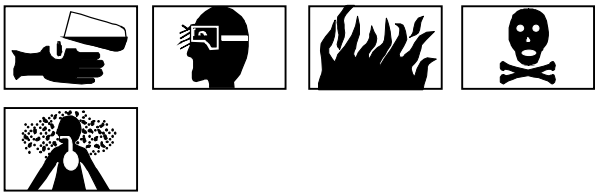
Epoxy Primer 33

NOTE

If overcoating BMS10-21 with MIL-C-46168 is delayed in excess of 24 hours, solvent wipe with thinner and spray a mist coat of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582) before MIL-C-46168 application.

b. Apply one coat, 0.0006 to 0.0010 inch dry film thickness, of antistatic coating and allow to dry for 1 1/2 hours. The maximum drying time is 24 hours.

c. Apply epoxy primer (refer to step a.).

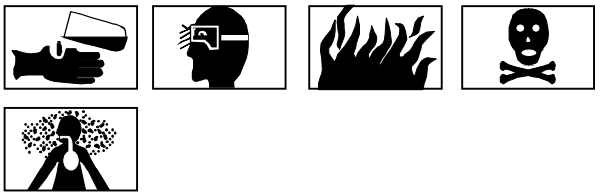


Polyurethane Coating 40

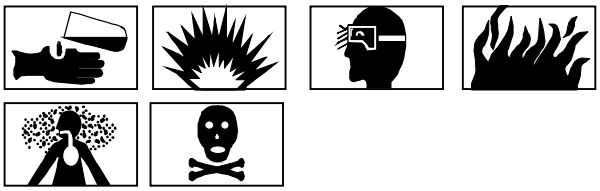
d. Apply polyurethane coating (MIL-C-46168, Color 37038, Black) by spraying. Apply to dry film thickness of 0.0018 to 0.0023 inch.

Do not exceed 180°F (82°C), damage to fiberglass can occur.

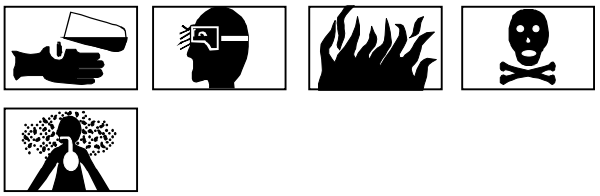
e. The coating system will dry to permit handling in 4 hours at room temperature. Curing time can be reduced by allowing to sit at room temperture for 30 minutes then cure with heat lamp for 60 minutes at 140° to 150°F (60° to 65°C). Monitor with temperature indicators.



Epoxy Primer 35



Epoxy Coating 36



Polyurethane Coating, High Solids 32

13. ANTENNAS. Blade antenna bases and whip antenna bases are to be finished with low infrared reflectance epoxy primer and polyurethane topcoats. Colors shall match the prescribed color scheme of the particular

aircraft. Do not paint whip antennas, wire antennas, or clear plastic windows in IFF and TACAN blade antennas. Flush antenna covers, radar altimeter antennas, and blade antennas are to be finished with two coats of clear epoxy coating (MIL-PRF-22750, color 17925) in accordance with MIL-C-22751. Then apply three coats of nonspecular black polyurethane (MIL-PRF-85285, color 37038) in accordance with MIL-C-81907.

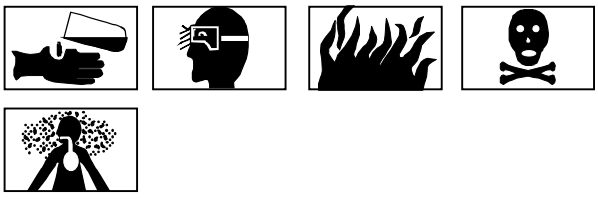
14. INTERIOR SURFACES - FUSELAGE.

Support Equipment Required

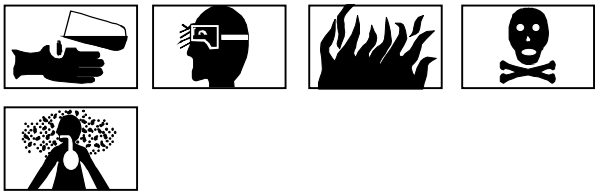
Nomenclature	Part No./ Type Designation
Faceshield	L-F-36
Gloves	ZZ-G-381, Type I
Gloves, Vinyl	MIL-G-82242
Goggles, Industrial, Rubber Frame	A-A-1813
Respirator, Canister Type	GGG-M-125/6

Materials Required

Nomenclature	Specification No./ Part No.
Coating Compound	MIL-C-8514
Coating, Polyurethane, High Solids, Gray	MIL-PRF-85285 Color 36231
Epoxy Coating, Engine Gray	MIL-PRF-22750 Color 16081
Epoxy Primer	MIL-PRF-23377
Epoxy Primer	MIL-PRF-85582

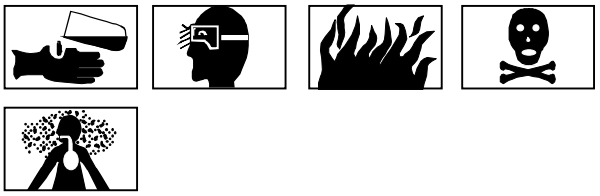


Epoxy Primer 35

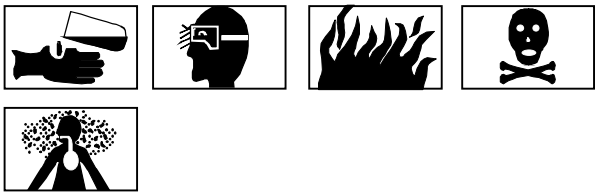


Epoxy Primer 33

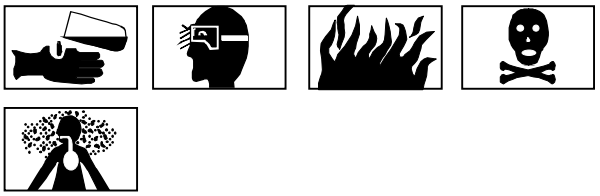
15. ALUMINUM AND ALUMINUM ALLOYS. Apply one coat of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582). Most aluminum tubing on the helicopter does not require a paint finish. Two exceptions are the aluminum tubing in the tunnel fairing area and the fuel system tubing in the lower deck. During Standard Depot Level Maintenance (SDLM), this tubing is to be touched up, if missing, with epoxy primer (MIL-PRF-23377 or MIL-PRF-85582).



Epoxy Primer 35

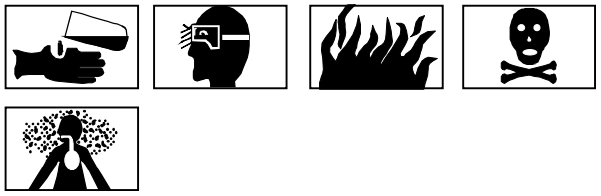


Epoxy Primer 33

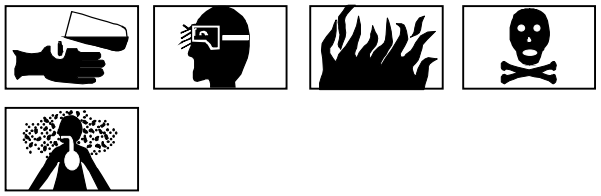


Polyurethane Coating, High Solids 32

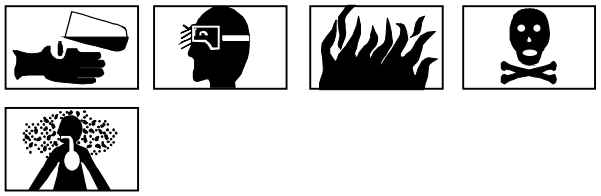
16. ALUMINUM BELLCRANKS. On aluminum bellcranks located in corrosion prone areas, apply one coat of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582). Then apply two coats of gray polyurethane coating.



Epoxy Primer 35



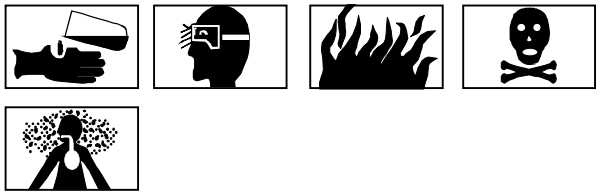
Epoxy Primer 33



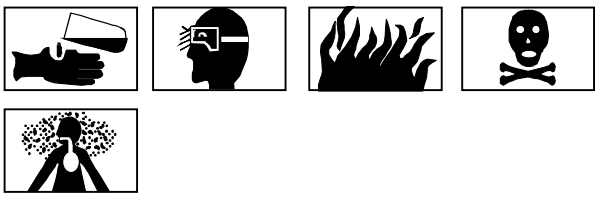
Polyurethane Coating, High Solids 32

17. ARMOR. On CH-46E helicopters, refinish engine interior armor plating by applying one coat of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582). Then apply two coats of gray polyurethane coating.

18. MAGNESIUM. Several different methods are used to paint magnesium components. The basic method is three coats of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582). When a finish coat other than primer is used, two coats of primer, plus the finish coat are sufficient. Exceptions to this method are as follows:



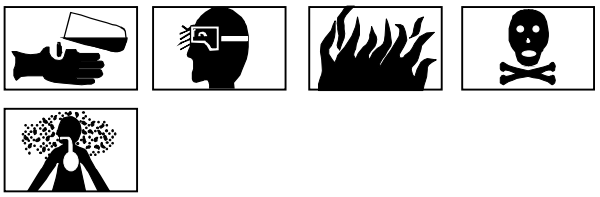
Coating Compound 41



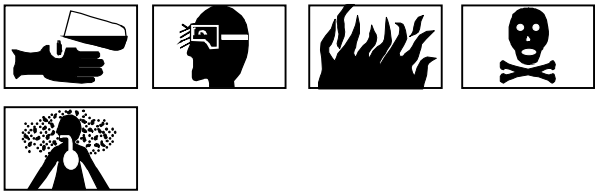
Epoxy Primer 33

a. Extrusions made of alloy ZK60 require an initial coat of coating compound followed by a heavy application of epoxy primer (MIL-PRF-85582).

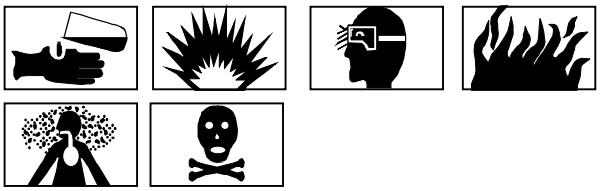
b. On CH-46E helicopters, an epoxy paint is used on castings and forgings. The epoxy finish consists of the following:



Epoxy Primer 35

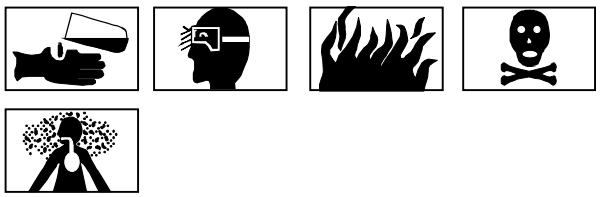


Epoxy Primer 33

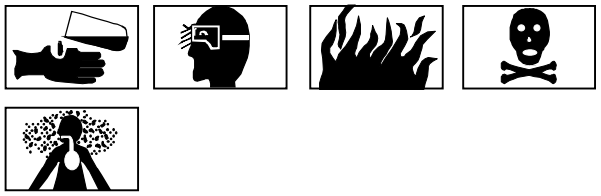


Epoxy Coating 36

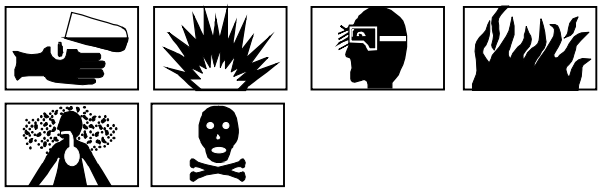
(1) Castings required three crosscoats of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582) followed by one or two coats of engine gray epoxy coating. A 0.003 inch minimum dry film thickness is required.



Epoxy Primer 35

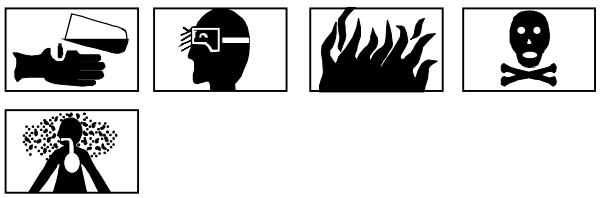


Epoxy Primer 33



Epoxy Coating 36

(2) Except for sheet stock which is finished by basic method, all other components require one cross coat of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582) and two coats of engine gray epoxy coating.



Coating Compound 41

19. CADMIUM-PLATED AND UNPLATED CARBON AND LOW ALLOY STEEL. Apply one coat of coating compound and allow to dry.

20. FINAL FINISH - INTERIOR PARTS.

Support Equipment Required

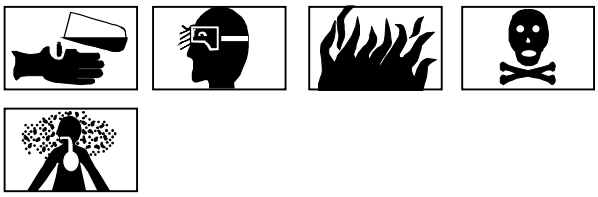
Nomenclature	Part No./ Type Designation
Faceshield	L-F-36
Gloves	ZZ-G-381, Type I
Gloves, Vinyl	MIL-G-82242
Goggles, Industrial, Rubber Frame	A-A-1813
Respirator, Canister Type	GGG-M-125/6

Materials Required

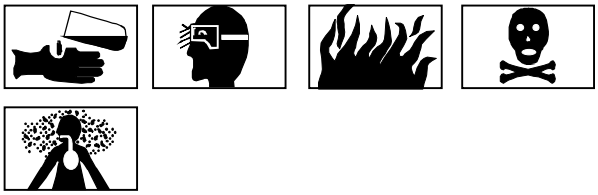
Nomenclature	Specification No./ Part No.
Epoxy Primer	MIL-PRF-23377
Epoxy Primer	MIL-PRF-85582 (Altn For MIL-PRF-23377)
Coating, Polyurethane, High Solids,	MIL-PRF-85285
Black	Color 37088
Gray	Color 36231

21. COCKPIT SECTION.

a. For HH-46D/UH-46D/CH-46D model helicopters:

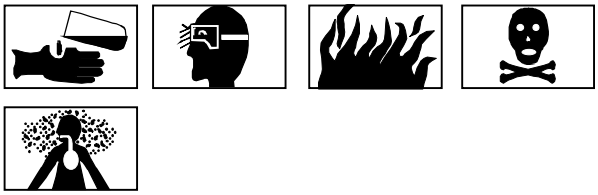


Epoxy Primer 35



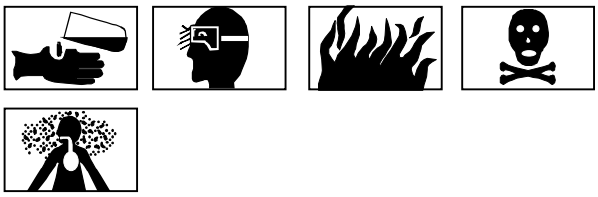
Epoxy Primer 33

(1) Apply one coat of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582) to interior of cockpit.



Polyurethane Coating, High Solids 32

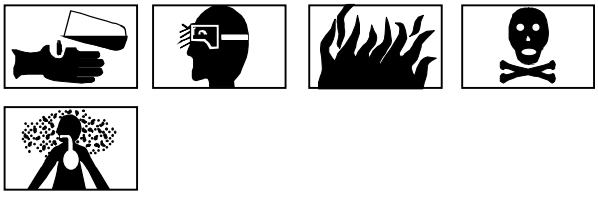
(2) Apply two coats of gray polyurethane coating to the interior of cockpit and all other non-reflecting cockpit parts and surfaces.



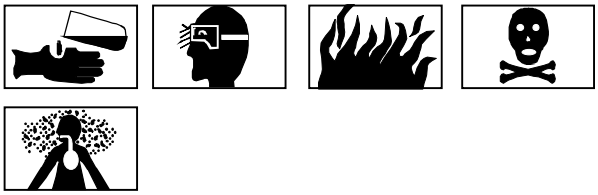
Polyurethane Coating, High Solids 32

(3) Apply two coats of black polyurethane coating to all surfaces which reflect in the windshield or instrument glass.

b. For CH-46E model helicopters:

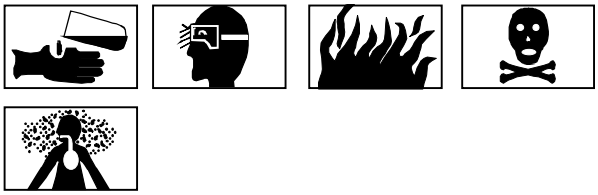


Epoxy Primer 35



Epoxy Primer 33

(1) Apply one coat of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582) to interior of cockpit.

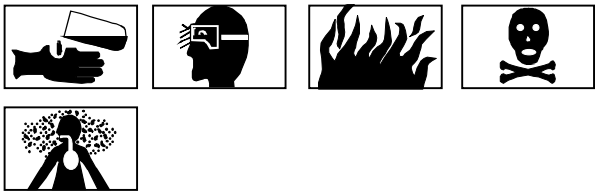


Polyurethane Coating, High Solids 32

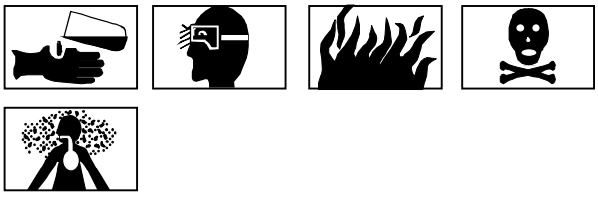
(2) Apply two coats of black polyurethane coating to interior of cockpit and all surfaces which reflect in the windshield or instrument glass.

22. CABIN FS 120 to 410, AVIONICS, FLIGHT CONTROL CLOSET, AND AFT FUSELAGE SECTION.

a. For HH-46D/UH-46D/CH-46D model helicopters:

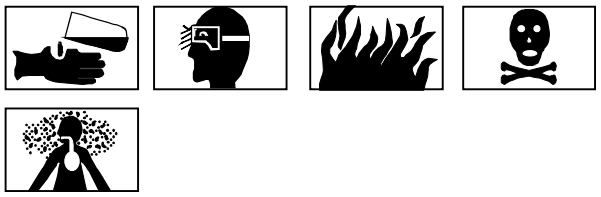


Epoxy Primer 35



Epoxy Primer 33

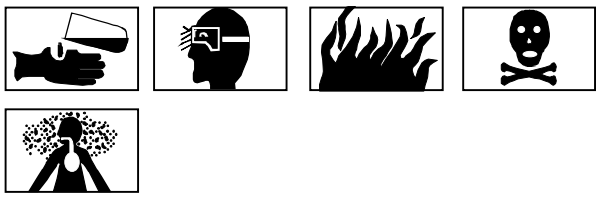
(1) Apply one coat of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582) to cabin, bilge area (below WL 24.75) interiors of avionics and flight control closets and aft fuselage interior up to bottom surface of transmission deck at WL 71.0.



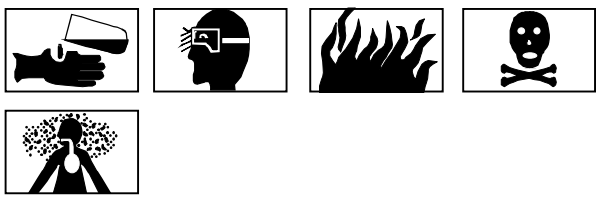
Polyurethane Coating, High Solids 32

(2) Apply two coats of gray polyurethane coating to cabin, interiors of avionics and flight control closets and aft fuselage interior up to bottom surface of transmission deck at WL 71.0. Do not include bilge area.

b. For CH-46E model helicopters:

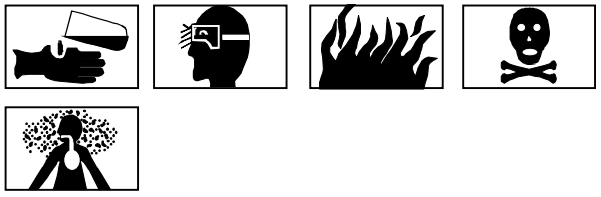


Epoxy Primer 35



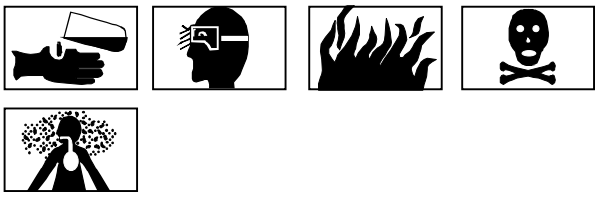
Epoxy Primer 33

(1) Apply one coat of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582) to cabin, bilge area (below WL 24.75) interiors at avionics and flight control closets and aft fuselage interior up to bottom surface of transmission deck at WL 71.0



Polyurethane Coating, High Solids 32

(2) Apply two coats of gray polyurethane coating to cabin, interior of avionics and flight control closets and aft fuselage interior up to bottom surface of transmission deck at WL 71.0. Do not include bilge area.



Polyurethane Coating, High Solids 32

(3) Apply two coats of black polyurethane coating to entry area forward of FS 120.

NOTE

Bulkheads, deck frames, and firewalls adjacent to the engine compartment and made of heat-resistant and corrosion-resistant alloys shall not be painted.

23. EXTERNAL AND INTERNAL MARKINGS.

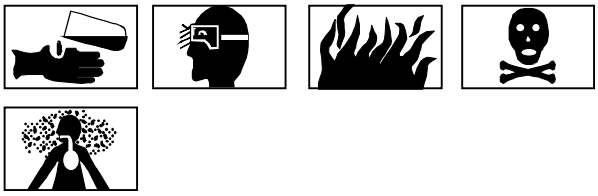
Support Equipment Required

Nomenclature	Part No./ Type Designation
Faceshield	L-F-36
Gloves	ZZ-G-381, Type I
Goggles, Industrial, Rubber Frame	A-A-1813
Respirator, Canister Type	GGG-M-125/6

Materials Required

Nomenclature	Specification No./ Part No.
Lacquer, Acrylic (Clear)	MIL-PRF-81352

24. Apply masking for insignia and markings after the coating has dried tack free. Apply tape with minimum pressure to avoid marring the finish. Use preformed masks and double-adhesive-backed tape, if available.



Acrylic Lacquer 24

25. (Figures 1 and 4.) Apply insignia and marking with clear acrylic lacquer directly to the dry topcoat.

26. COMPONENT, EQUIPMENT, AND EQUIPMENT CONTAINER MARKINGS.

27. Figure 5 illustrates markings for internal equipment and internal equipment containers except fire extinguishers, oxygen bottles, first aid kits, watertight dam and powered down ramp and the external rescue system. Refer to figure 6 for equipment markings for the watertight dam and powered down ramp. Refer to figure 7 for equipment markings for the external rescue system.

28. SPECIAL SURFACES.

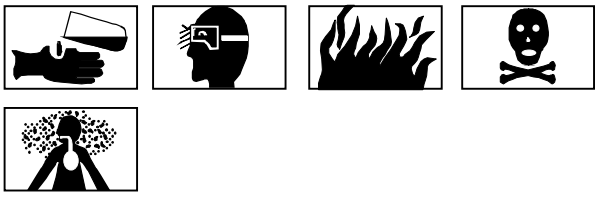
Support Equipment Required

Nomenclature	Part No./ Type Designation
Apron, Rubber	MIL-A-41829
Faceshield	L-F-36
Gloves	ZZ-G-381, Type I
Gloves, Vinyl	MIL-G-82242
Goggles, Industrial, Rubber Frame	A-A-1813
Respirator, Canister Type	GGG-M-125/6

Materials Required

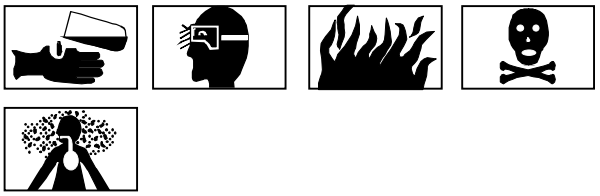
Nomenclature	Specification No./ Part No.
Abrasive Cloth, Aluminum Oxide No. 320	P-C-451
Coating, Polyurethane, High Solids, Black	MIL-PRF-85285, Color 37038
Epoxy Primer	MIL-PRF-23377
Epoxy Primer	MIL-PRF-85582
Epoxy Primer, Low Infrared Reflectance	MIL-PRF-23377 Type II
Lacquer, Acid-Resistant, White	A-A-1452
Thinner, Cellulose-Nitrate	A-A-857
Walkway Compound, Black	A-A-59166, Type II Color 37038

29. EXHAUST TRAIL AREAS.



Epoxy Primer 35

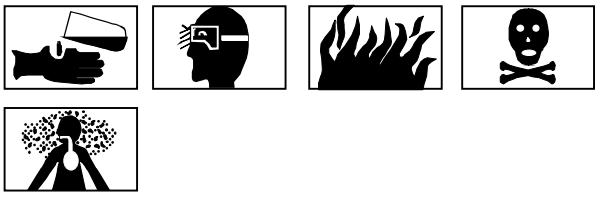
a. Apply one coat of low infrared reflectance epoxy primer (MIL-PRF-23377, Type II) to exhaust trail area marked BLACK on detail Q and R of figure 1.



Polyurethane Coating, High Solids 32

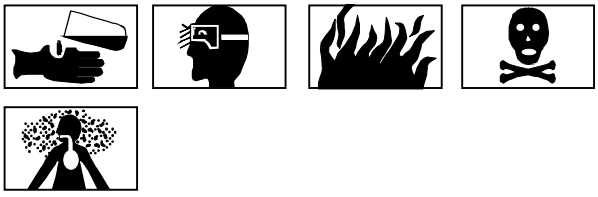
b. Apply two coats of black polyurethane coating to exhaust trail areas.

(1) No sooner than two hours after the application of epoxy primer in step a, mask all markings in the area to be closed with black polyurethane topcoat to a point not closer than 1/32 inch from any character on the marker. Completely mask any markings that extend beyond this area.

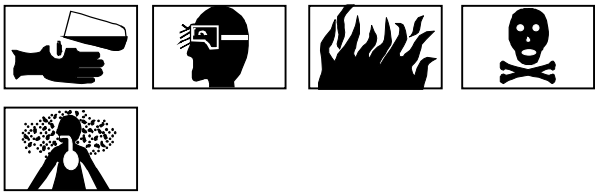


Cellulose-Nitrate Thinner 16

(2) Using aluminum oxide abrasive cloth scuff the black polyurethane within the area to be painted. Then, using thinner, clean the scuffed area and let it thoroughly air dry. Do not damage the masking when scuffing or cleaning.

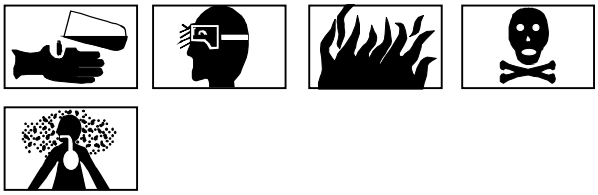


Epoxy Primer 35



Epoxy Primer 33

(3) Spray two light coats of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582) on the area to be painted. Allow a minimum of two hours drying time for the primer.



Polyurethane Coating, High Solids 32

CAUTION

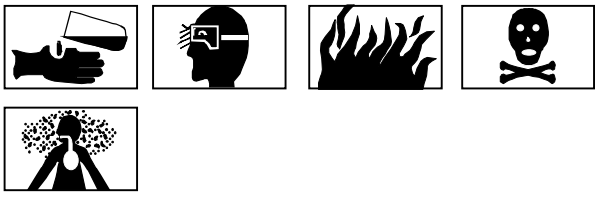
Areas finished with an aliphatic polyurethane topcoat cannot be refinished with acrylic lacquer. They must be refinished with a polyurethane coating.

(4) Spray one coat of black polyurethane coating on the area marked BLACK in details N and O of figure 1.

(5) Remove all masking as soon as possible.

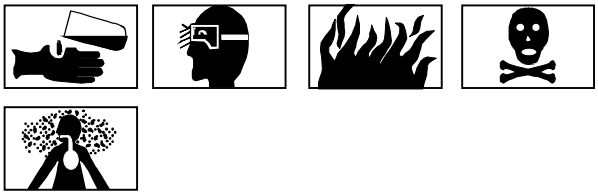
(6) Allow polyurethane coating to dry tack-free for 18 hours before applying any stencils or markings. If any markings are to be applied, allow a minimum of 24 hours drying time before applying them.

(7) No sooner than two hours after the application of epoxy primer (MIL-PRF-23377, Type II) in step a. or black polyurethane coating in step b.(5); mask all markings in the area to be coated to a point not closer than 1/32 inch from any character on the marker. Completely mask any markings that extend beyond this area.



Cellulose-Nitrate Thinner 16

(8) Clean the area to be coated with thinner. Do not permit naphtha to contact the black polyurethane coating.

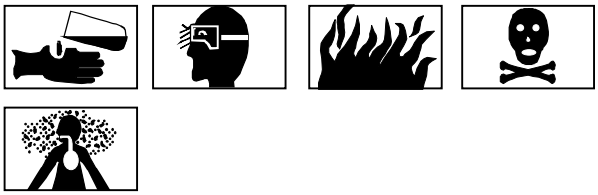


Lacquer, Acid-Resistant, White 42

(9) Apply one coat of lacquer on the area marked GREEN on figure 1, sheet 6. Allow the lacquer to dry for two hours before applying any stencils or markings.

(10) Remove all maskings as soon as possible.

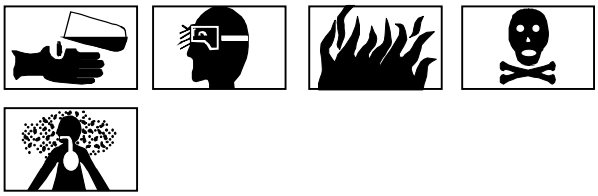
(11) Reapply all stencils covered over during the application of black polyurethane topcoat within 24 hours.



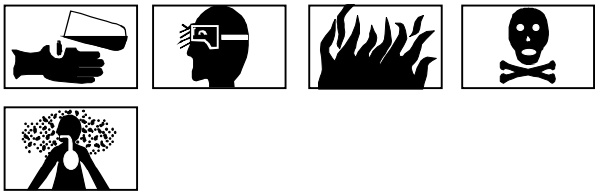
Polyurethane Coating, High Solids 32

c. On UH-46D helicopters, apply one additional coat of black polyurethane coating (color 37038).

30. RELIEF TUBE DRAIN AREAS.



Epoxy Primer 35

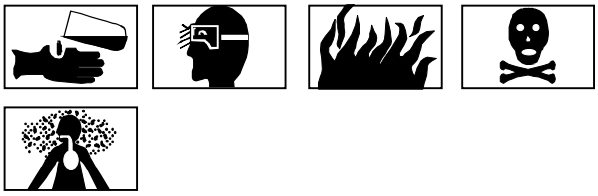


Epoxy Primer 33

NOTE

The color of the acid-resistant paint should be chosen to provide maximum contrast with adjacent surfaces.

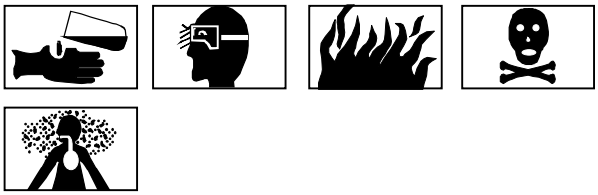
a. Apply one coat of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582) to areas within 24 inches of the drain.



Lacquer, Acid-Resistant, White 42

b. Allow sufficient drying time, then apply two coats of white acid-resistant lacquer.

31. WALKWAYS. Refer to figures 1 and 4 for the location, type, and color of walkway compound to be applied.



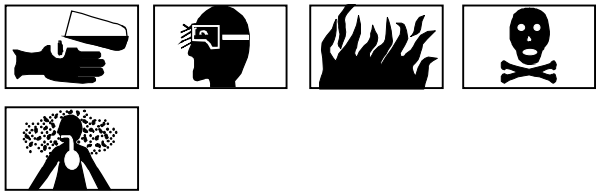
Cellulose-Nitrate Thinner 16

NOTE

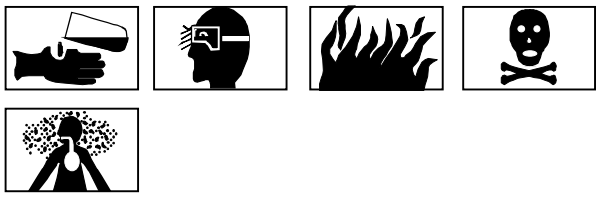
Walkway compound should be applied unthinned, with a brush. However, the coating may be thinned with thinner for spraying.

a. Remove all wax, grease, oil, dirt, and other foreign material from the areas to be coated.

b. Mask adjacent areas.

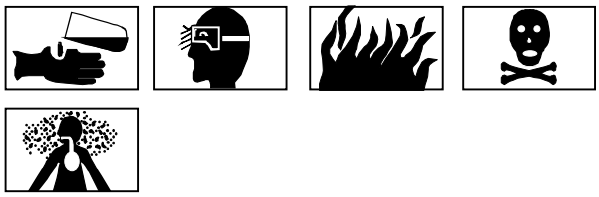


Epoxy Primer 35



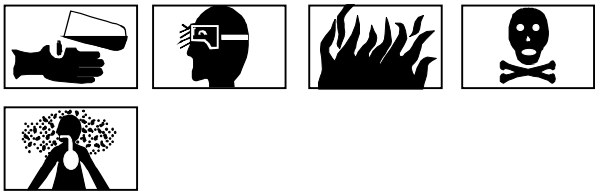
Epoxy Primer 33

c. Spray two coats of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582) to the cleaned areas. Allow each coat to dry.



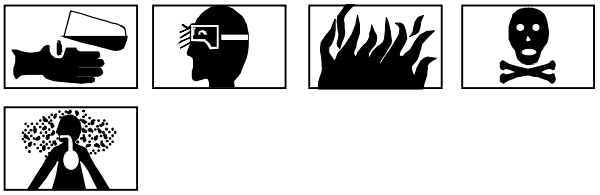
Walkway Compound 31

d. Prepare the required amount of walkway compound in accordance with the manufacturer's directions on the container.



Walkway Compound 31

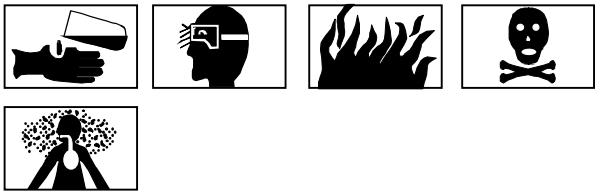
e. Apply an initial thin, uniform coat of the walkway compound to the primed surfaces. Allow it to dry thoroughly.



Walkway Compound 31

f. Apply successive coats of walkway compound in liberal quantities by brushing quickly on relatively small areas each time.

g. Allow each coat to dry thoroughly with a minimum of 30 minutes between coats. Avoid brushing over the same area immediately after it has been coated.

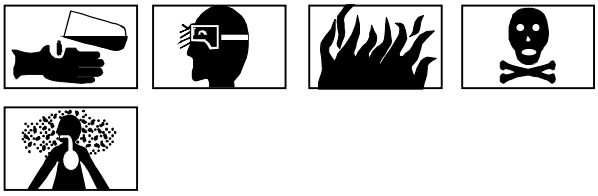


Walkway Compound 31

h. Apply four to five liberal brush coats of walkway compound after the initial thin coat.

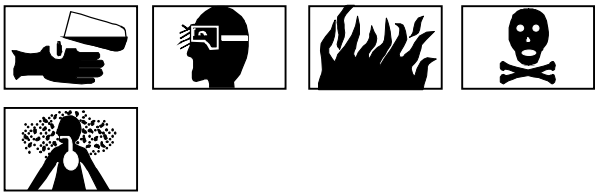
i. Allow the coated surfaces to air dry for a minimum of one hour before handling, and for 24 hours before subjecting them to light traffic. Maximum hardness is attained after approximately seven days of air drying.

j. Sand the edges of coated surfaces to fair them in smoothly with adjacent uncoated areas.



Walkway Compound 31

k. Apply black walkway compound to the drain and ramp center floor panels. Do not coat the tiedown fittings or rails in the floor panels.



Walkway Compound 31

l. Apply black walkway compound to the tread of the pilot's directional pedals.

32. COMPONENT REFINISHING.

Support Equipment Required

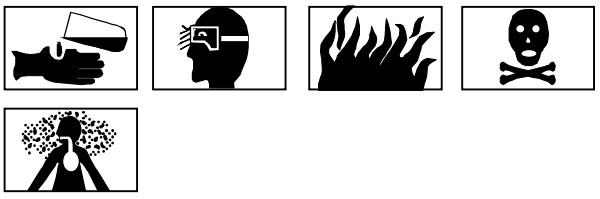
Nomenclature	Part No./ Type Designation
Apron, Rubber	MIL-A-41829
Faceshield	L-F-36
Gloves	ZZ-G-381, Type I
Gloves, Vinyl	MIL-G-82242
Goggles, Industrial, Rubber Frame	A-A-1813
Respirator, Canister Type	GGG-M-125/6

Materials Required

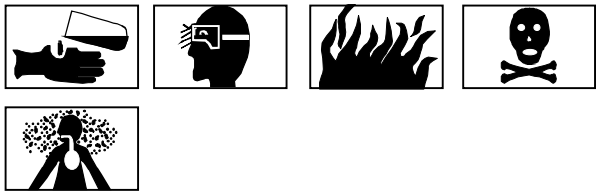
Nomenclature	Specification No./ Part No.
Aerosol Enamel	A-A-2787
Antistatic Coating	BMS10-21
Barrier Material	MIL-B-121
Chemical Conversion Coating	MIL-C-81706
Coating, Polyurethane, Black	MIL-C-46168, Color 37038
Coating, Polyurethane, High Solids, Low Infrared Reflectance, Green	MIL-PRF-85285B Type I/II Color 34095
Epoxy Coating, Engine Gray	MIL-PRF-22750, Color 16081
Epoxy Primer	MIL-PRF-23377
Epoxy Primer	MIL-PRF-85582 (Altn for MIL-PRF-23377)
Epoxy Primer, Low Infrared Reflectance	MIL-PRF-23377 Type II
Solvent, Dry Cleaning	MIL-PRF-680, Type II or III
Tape, Masking	UU-T-106
Zinc Chromate Primer	TT-P-1757

33. TRANSMISSIONS AND DRIVE SHAFTS.

a. Apply masking tape or barrier material to all exposed splines, thread, plastic plugs, slider assemblies, oil filler caps, and oil seals.



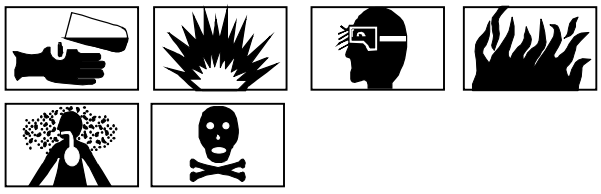
Epoxy Primer 35


Epoxy Primer 33

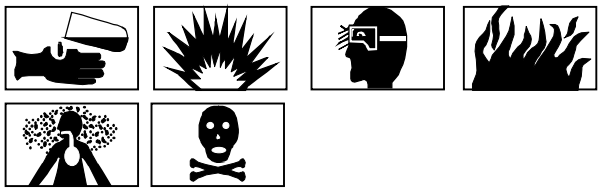

Epoxy Coating 36

b. Apply three coats of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582), to all exposed surfaces of the transmissions or drive shafts, except the steel engine drive shafts. CH-46E helicopters have engine grey epoxy coating.

c. Apply epoxy coating in accordance with MIL-C-53072, as follows:


Epoxy Coating 36

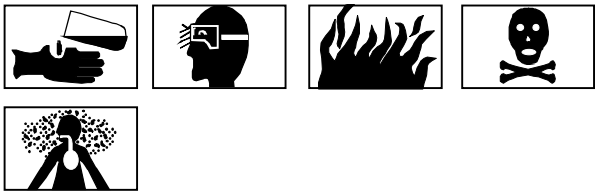
(1) Apply one coat of engine gray epoxy coating to drive shafts. Mask defined areas of each part (A1-H46AE-260-000, WP 015 00 or WP 016 00).


Epoxy Coating 36

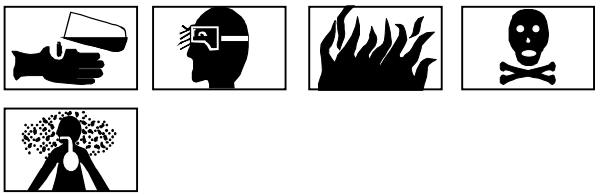
(2) Apply two coats of engine gray epoxy coating to transmissions. Allow sufficient time for drying between coats. A minimum total paint dry film thickness of 0.004 inch must be produced.

34. ROTARY-WING HEAD. (Figure 8.)

a. Mask all holes, bore and mating surfaces, sight gauges, piston rod, and air breathing holes of reservoir extension cap. Use barrier material and masking tape.

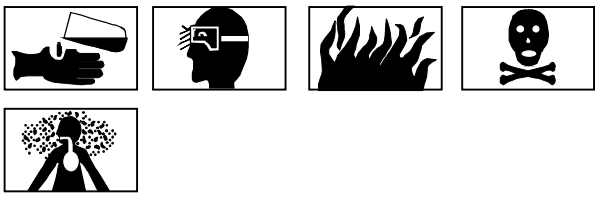

Epoxy Primer 35

b. Apply one coat of low infrared reflectance epoxy primer (MIL-PRF-23377, Type II).


Polyurethane Coating 40

c. Apply one coat of lusterless black polyurethane coating (MIL-C-46168, color 37038).

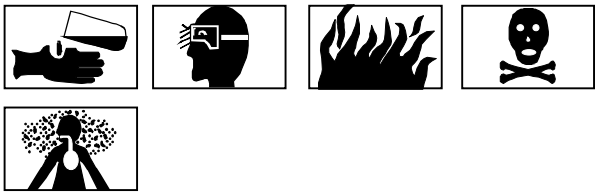
d. Remove masking tape applied in step a.


Aerosol Enamel 43

e. Apply a band of enamel, 3/4 inch wide, around each fitting. The outboard edge of the band shall be 2.5 inches from the centerline of the blade retaining pins. Color of bands shall be red on No. 1 blade and, orange-yellow on No. 2 blade arm, and green on No. 3 blade arm. The top of each blade retaining pin shall be painted the same color as its blade arm.

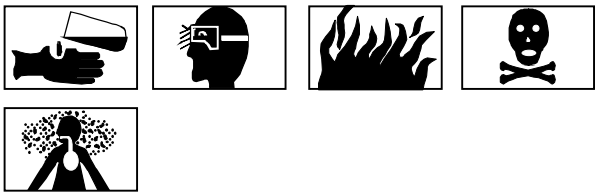
35. ROTOR CONTROLS.

a. Apply masking tape to thread, bolt holes, and bushings of the rotor controls, including the bore of the slider assembly and the barrels and indicating sleeves of the pitch link assemblies.

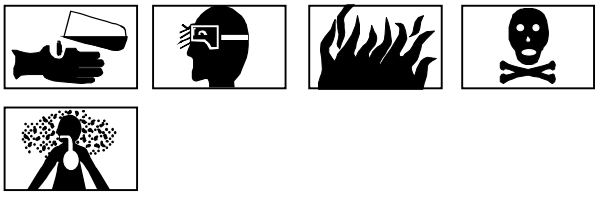


Epoxy Primer 35

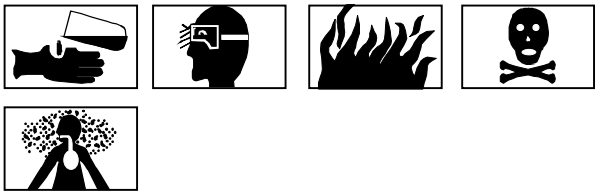
b. Apply two coats of low infrared reflectance epoxy primer (MIL-PRF-23377, Type II) to the swashplate, the drive scissors, and the slider.



Epoxy Primer 35



Antistatic Coating 39



Polyurethane Coating 40

c. Apply one coat of low infrared reflectance epoxy primer (MIL-PRF-23377), one coat of antistatic coating, for the rainshield only, and one coat of lusterless black polyurethane to the pitch link assembly and the rainshield, except the pitch link boots and jackets. Allow sufficient drying time between application.

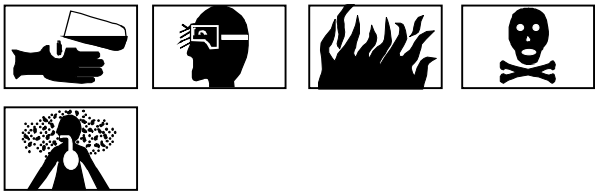
36. FIBERGLASS ROTOR BLADES. Refer to FIBERGLASS, this WP and NAVAIR 03-95A-39 for the refinishing procedures on fiberglass rotor blades.

37. MAIN LANDING GEAR-SHOCK STRUT ASSEMBLY.

CAUTION

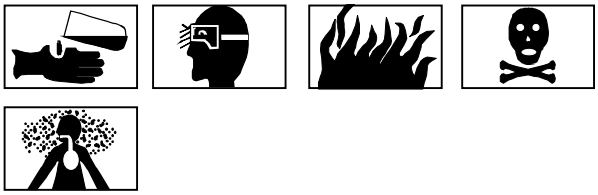
Paint only the barrel assembly and link assembly. Do not paint nameplate, warning note, servicing plate, weight on wheels switch, and surfaces where paint will reflect working parts.

a. Apply masking tape to thread, bolt holes, bushings, nameplate, warning note, servicing plate and sliding surface of piston assembly.



Epoxy Primer 35

b. Apply one coat of low infrared reflectance epoxy primer (MIL-PRF-23377, Type II).

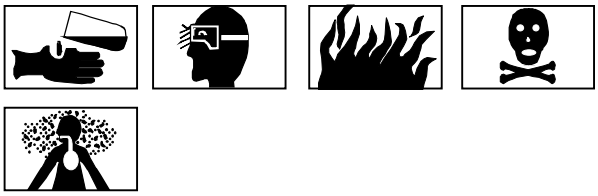


Polyurethane Coating, High Solids 32

c. Apply two coats of low infrared reflectance polyurethane coating. Allow sufficient drying time between coats.

38. FLIGHT CONTROLS.

a. Remove loose paint and powdery products of corrosion with a nonmetallic scraper.

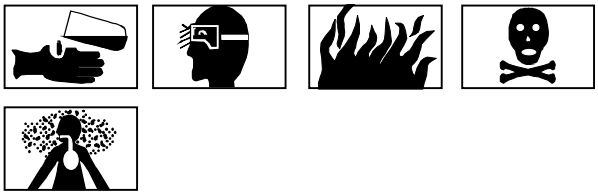


Dry Cleaning Solvent 11

NOTE

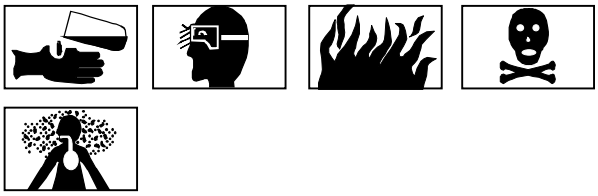
Soap and water may be substituted for solvent. After washing with soap and water, rinse area thoroughly with water and wipe dry.

b. Wash the area with solvent-soaked cloths and allow to dry.



Chemical Conversion Coating 10

c. Brush area with chemical conversion coating in accordance with MIL-C-81706.



Zinc Chromate Primer 44

d. Touchup area with two coats of zinc chromate primer in accordance with MIL-P-6808.

39. TOUCHUP.

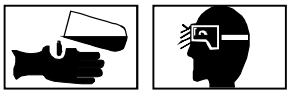
Support Equipment Required

Nomenclature	Part No./ Type Designation
Gloves, Vinyl	MIL-G-82242
Goggles, Industrial, Rubber Frame	A-A-1813

Materials Required

Nomenclature	Specification No./ Part No.
Abrasive, Cloth, Aluminum Oxide	P-C-451
Detergent, Non-Ionic	MIL-D-16791, Type I

40. Use the following methods when touchup is required to preserve and restore the original finish and color. Refer to figures 1 through 5 and tables 1 and 2 for location of external and internal markings, insignias, and lettering.



Non-Ionic Detergent 21

a. Thoroughly clean the surface requiring touchup; contamination of any type will cause poor adhesion, cratering, and premature film failure. Prepare the painted surface requiring touchup by masking the necessary areas. Then clean the surface with detergent and rinse it clean.

b. While the surface is still wet, sand the area lightly with 300 to 400 abrasive cloth to remove the oxidized paint, and to obtain adequate intercoat adhesion. Thoroughly rinse with fresh water to remove sanding residue.

c. After surface is dry, apply one coat of epoxy primer (MIL-PRF-23377 or MIL-PRF-85582) and one coat of clear acrylic lacquer (top coat). Refer to NAVAIR 01-1A-509.